

OVERSEAS NEWS

Rhodesia talks still facing interim government hurdle

By TONY HAWKINS

SALISBURY, Feb. 19.

DELEGATES FROM the four parties engaged in Rhodesia's domestic settlement talks meet in full plenary session tomorrow to try and resolve the final outstanding major hurdle to an agreement. That is—the structure, composition and duration of an interim government to supervise free elections and pave the way for a one-man-one-vote government late this year or early in 1979.

At last week's talks the strictly constitutional problems were solved "in principle" (though there is detailed drafting to be done) and the delegates reported also that they had reached agreement "in principle" on a "statement of intent" about the future composition of the security forces.

This leaves the interim government problem to be resolved and politicians here say that this could be done in time for a signing ceremony within the next fortnight or possibly within a few days. The disagreement on the interim government is between all three nationalist parties on the one hand—who

have reached a consensus on what they would like to see—and the Smith government on the other.

At the root of the disagreement is Mr. Smith's fear that any majority rule executive being "imposed" on the country before his promised referendum could dangerously undermine his position at that referendum. The blacks want a system whereby 75 per cent of the ministerial posts would be held by the nationalists and only 25 per cent by Mr. Smith's ruling Rhodesia Front.

They say also that parliament should be recessed and the country governed by decree pending the final drafting of the constitution, registration of voters and determination of constituencies. Only when all this has been done can the plan be put to the 100,000 white voters at a referendum. Mr. Smith fears he could lose that referendum if he has already accepted a majority rule executive—with many more black than white ministers—and has agreed to government without the popu-

larly (in terms of the white electorate) elected legislature. But the Prime Minister is being told by at least some of his advisers that what matters now is winning black rather than white acceptance. His advisers are saying that if the interim government is seen by the country's black majority to be in any way "phoney" then the whole plan will collapse. This is believed to be a much more real danger than that of rejection at the referendum by whites.

Difficult though the problems of reaching agreement on an interim administration may yet turn out to be, there is little doubt here that there will be a deal fairly soon.

Black leader the Rev. Ndabaningi Sithole said in London over the week-end he was "quite optimistic" and that the British Government would accept the constitutional agreement reached last Wednesday between Rhodesia's Mr. Ian Smith and moderate nationalist leaders including himself.

Mr. Sithole is to have talks with Mr. David Owen, the Foreign Secretary on Monday.

Front line states may meet soon

By MICHAEL HOLMAN

LUSAKA, Feb. 19.

THE VISIT of Mr. Joaquim Chissano, Mozambique Foreign Minister to Lusaka this weekend, carrying a message for President Kaunda from President Machel, has led to speculation that the five front-line states may meet soon to consider the implications of the Salisbury agreement between Prime Minister Ian Smith and three internally-based black leaders.

The five—Mozambique, Zambia, Tanzania, Botswana and Angola—last met in the Mozambique town of Beira shortly before Christmas. The outcome was a

four-point declaration which included support for the "positive aspects" of the Anglo-American settlement plan for Rhodesia, and a reaffirmation of its commitment to the guerrilla-backed Patriotic Front led by Joshua Nkomo and Robert Mugabe.

Although the Governments of Zambia and Mozambique have condemned the Salisbury agreement—and there is no sign that the other front-line members differ—the presidents may share the concern of nationalist officials African Peoples Union are inside the country. Yet the Zanu army is estimated at 6,000 (with at least as many in training) based in Angola and Zambia.

over recognition of a predominantly black administration in Salisbury.

A third issue may be the increasingly important role of Zambia in the five-year war. Up to now the main guerrilla offensive has come from the Mozambique bases of Robert Mugabe's Zimbabwe African National Union army, of whom some 3,000 are inside Rhodesia.

However, only 500-600 guerrillas of Joshua Nkomo's Zimbabwe African Peoples Union are inside the country. Yet the Zanu army is estimated at 6,000 (with at least as many in training) based in Angola and Zambia.

Debate call on Israeli links with Ethiopia

By L. DANIEL

JERUSALEM, Feb. 19.

AN URGENT Knesset debate has been called for by a prominent member of Israel's Labour Party, now in opposition, on Foreign Minister Dayan's statement in an interview in Zurich a week ago, that Israel was rendering limited military aid to Ethiopia.

It was this statement which caused the Ethiopian Government to expel all Israeli within 48 hours, M.K. (Member of Knesset) Yossi Sarid stated on Israeli television last night. He said that no Israeli nationals have remained in Ethiopia, but some sources here claimed this morning that several commercial representatives had been allowed to stay on.

Gen. Dayan's statement was, until last night, almost studiously ignored both by the local press and Israeli radio and TV. While the fact that Israel has rendered limited assistance to Ethiopia in the past had been known, it was not given any publicity. This assistance, according to reports published abroad, included the training of Ethiopian troops by Israeli instructors on Soviet tanks at their disposal.

John Worrall adds from Nairobi: The Kenyan Government this week-end said it had not been informed that Israel was recalling its ambassador from Nairobi and closing its embassy. The announcement was made in Tehran on Saturday by the Iranian Foreign Minister, Mr. Abbas Ali Khatamabadi.

Ailing Kenyan Foreign Minister, Mr. James Ogozo, said the Kenyan Government had not been informed of anything officially.

A row erupted after Kenyan protests on television about Israel's involvement in the war in the Horn of Africa on the side of Somalia. "Israel is not an African country, to take part in African issues," it was said.

Egyptian intervention ends in bloodshed

LARNACA, Feb. 19.

ALL THE hostages aboard a commandeered Cyprus Airways DC-8 plane escaped safely to-night after a fierce gun battle between Egyptian commandos and Cypriot security forces at Larnaca airport in Cyprus.

An official in the control tower, contacted by telephone, said the shooting broke out when Egyptians tried to storm the plane, which was being held by two unidentified gunmen.

He said the Cypriots immediately intervened to prevent the action and killed at least five Egyptian commandos and wounded many more. Palestinian sources here said earlier at least 15 Egyptians had been killed.

The official said: "The tarmac is like a battlefield, but all the hostages and the crew are safe."

Michael Tingay writes from Nicosia: The Egyptian intervention in the Cyprus hijacking and the fighting with Cypriot security forces which it triggered, is the

second major diplomatic intervention recently made by President Sadat.

Only a week ago he detained two Kenyan passenger planes at Cairo after an Egyptian plane was forced by the Kenyan Air Force to land at Nairobi. This was during an attempt to overfly Kenyan airspace on an arms supply run to Somalia.

The Cyprus incident is more serious, because lives have been lost and because it has put at risk the good relations between Nicosia and Cairo, which were fostered so carefully and successfully by the late Archbishop Makarios, who strove to keep Cyprus out of the Arab-Israeli disputes.

The murder in Nicosia of Mr. Yusuf Sibal, the prominent Egyptian writer and former Minister of Information, was the most violent anti-Egyptian incident since President Sadat's peace initiative with Israel last

November. Bombings and shootings against Egyptian embassies have so far resulted in little damage.

That four Palestinians, including two PLO officials, known to line up with PLO Chairman Yasser Arafat should have been taken hostage is the most public indication yet of the political disarray among the Palestinians. Observers said that Arabs may have begun to over-react, in many different ways, regardless of their political colour.

One of the factors which may have encouraged the Egyptian Government to try to intervene at Larnaca is that Cyprus has gained the reputation in extremist Arab circles as a soft Government following the breakdown of a secret agreement negotiated by the late Archbishop Makarios with Israeli and Palestinian leaders to keep Cyprus out of the disputes.

The Sibal incident and the

more serious Larnaca fiasco is the third major incident involving Cyprus, in the past six months.

Last September, the Nicosia Government permitted an Algerian and a Palestinian guerrilla to go free after they had hijacked a plane from Spain and made demands for the release of prisoners in Israel. Soon afterwards Cyprus was involved in a dispute with West Germany, when Nicosia refused permission for a West German commando team, including British men from the Special Air Service, which had landed at Larnaca to attack the plane which was allegedly stowed away dramatically at Mogadishu.

Observers believe it was the Mogadishu incident and the anger felt in Egypt after the murder of Mr. Sibal in Nicosia which led to President Sadat's decision to try to intervene in the disputes of the attitude of the Cyprus Government.

Begin is 'crying for the moon' says Sadat

By ROGER MATTHEWS

CAIRO, Feb. 19.

PRESIDENT SADAT of Egypt said today that he could not understand how the United States could support his peace efforts while at the same time lavishing arms on Israel.

In an interview with the weekly "October" magazine Mr. Sadat argued that Israel could play with the idea of peace simply because of the enormous quantity of military equipment that had been received from Washington.

He once again dismissed the F-5E fighters which President Carter has agreed to sell to Israel. It is supposed in Cairo that Mr. Sadat is personally responsible for the lack of progress in the Middle East peace talks, and they intend to continue "courting the Israeli public."

Mr. Sadat is reported to have recovered some of his optimism since his talks with President Carter. There is also satisfaction that Dr. David Owen, Britain's Foreign Secretary, is to visit Israel. It is supposed in Cairo that Mr. Sadat is personally responsible for the lack of progress in the Middle East peace talks, and they intend to continue "courting the Israeli public."

offer they are equally well aware that Mr. Sadat's initiative has failed to alter the balance of power in the Middle East and said that the U.S. does not intend to match the Soviet Union's arms supply role during the early 1970s.

Another reported coup threat came in an official statement from the military prosecutor yesterday. He stated that 34 members of a Communist organisation, whose arrest has been previously announced, were to stand trial on charges of attempting to stage a coup. They are accused of trying to change the system of Government by preparing acts

of sabotage and fomenting sedition among students. A number of Communist leaders are said to have been found in their possession.

Syrian President Hafez Assad leaves today on a three-day visit to Moscow seen as part of efforts to increase the political and military standing of the five-member Arab "resistance front" forced last year to accept the Information Minister Ahmed Iskander, told Reuters today the President's talks would focus on a strengthening of Syrian-Soviet relations and their "joint struggle against imperialist aims in Arab territories."

W. German terrorism law threatened by the liberals

By JONATHAN CARR

BONN, Feb. 19.

THE ANTI-TERRORISM measures passed by the Bundestag with a majority of only one vote may not become law in their present form—and will continue to be a source of friction between the West German government coalition partners.

The FDP is angered because the proposals it introduced with its Social Democrat (SPD) partner were almost torpedoed by four SPD deputies who decided to vote against the law.

The FDP is angry because the proposals it introduced with its Social Democrat (SPD) partner were almost torpedoed by four SPD deputies who decided to vote against the law.

But today Herr Genscher said he could not preclude the attitude of these FDP members, adding sharply that it was not up to the FDP to use its provincial coalition with the CDU to correct the internal problems of the SPD.

This statement is one of the clearest examples yet of a greater coldness between the SPD and FDP—a coldness exemplified by the aloof attitude of Mr. Genscher when Chancellor Helmut Schmidt recently reshuffled his Cabinet, replacing only SPD Ministers.

The anti-terrorism measure, which seems bound to go to the all-party Parliamentary arbitration committee where the CDU will seek its influence in the Bundestag, to strengthen them.

Peru loan negotiations continue

By FRANK FULLER

NEGOTIATIONS between the national authorities to secure a \$2.5 billion loan from the International Bank for Reconstruction and Development (IBRD) are continuing in Peru.

The IBRD is offering a loan of \$2.5 billion for five years with the grace period likely to be two years. Drawdown periods would be closely tied to that of the loan which the IMF is currently negotiating with the country.

The spread the borrower will pay is not expected to reflect the state of Peru's finances, one banker said. Essentially the banks will be trying to help Peru avoid a default on its debt which would have far-reaching repercussions.

Figures published last year by the Bank for International Settlements in Basel showed that major international banks had claims worth \$2,900m. on Peru while unused credit commitments only amounted to \$590m. Of the \$2,900m, \$1,220m. was due to mature in 1977.

The banks negotiating with Peru are considering a loan of at least \$200m. for five years with the grace period likely to be two years. Drawdown periods would be closely tied to that of the loan which the IMF is currently negotiating with the country.

The spread the borrower will pay is not expected to reflect the state of Peru's finances, one banker said. Essentially the banks will be trying to help Peru avoid a default on its debt which would have far-reaching repercussions.

Mrs. Bhutto re-arrested

By SIMON HENDERSON

ISLAMABAD, Feb. 19. THE wife of Pakistan's detained former prime minister, Mr. Zulfikar Ali Bhutto, was put under arrest today for the fourth time since the military ruler, General Zia ul Haq, took over last July. Mrs. Nusrat Bhutto, who is leading the Pakistan People's Party during her husband's trial on a murder charge, has to stay in her Lahore home until Tuesday night. Previous house arrests have prevented her leading demonstrations in protest against Mr. Bhutto's detention. Mindful of a riot that occurred when she attended a cricket match last December, the authorities military government's action enabled the India/Pakistan hockey international to pass off in the city without incident this afternoon. A large crowd including General Zia watched India win 2-1.

China's Parliament

PEKING, Feb. 18.

CHINA'S parliament will meet on February 26, the New China News Agency (NCNA) announced today.

The Fifth National Peoples Congress, the country's rubber stamp parliament will put the official seal of approval on the changes that have taken place in the country since the death of Mao Tse Tung in September 1976 and the battle against the extremist influence that still continues.

The session is also expected to give the clearest insight yet into the country's present power structure.

Italian Communists call truce for all-party talks

By DOMENICO J. COYLE

ROME, Feb. 19.

ITALY'S Communist Party today temporarily set aside its political demands, as the country's six parties try to reach a compromise agreement on the terms of an emergency economic programme.

The PCI is not dropping its demands for a clear and unambiguous place in the next governing majority, but the party signalled over the weekend that it was agreeable to a "pause" in the political dialogue on the precise shape of the next Italian Government.

Sig. Andreotti will resume in the morning his talks with experts of the main opposition parties, including the Communists. The negotiations will tackle the mounting public sector deficit moves to avoid a number of pending referenda (including one on the sensitive question of abortion), steps to combat rising unemployment and measures to improve the maintenance of law and order.

The Prime Minister-designate is also expected to meet with trade union leaders later this week to discuss their opposition, agreed with the Communists.

to aspects of his outline economic programme.

But the nub of the crisis, which he left without a Government for just over one month, remains political. The Communists, who at first demanded seats in the next Cabinet, now insist that their support for a new administration will depend on the Christian Democrats accepting the PCI as part of a Parliamentary majority sustaining a new minority DC Government.

The Christian Democrats, who traditionally have campaigned on a strong anti-Communist ticket, are reluctant to concede such enhanced political status to the PCI in part because over one-third of the Party's backbenchers have warned Sig. Andreotti that they will reject such a proposal.

Following a fresh round of talks with party experts this week, Sig. Andreotti is expected to call another collegial meeting of party leaders and it is also likely that the DC Parliament will be summoned into special session to determine finally what if any compromise is to be weak to discuss their opposition, agreed with the Communists.

Following a fresh round of talks with party experts this week, Sig. Andreotti is expected to call another collegial meeting of party leaders and it is also likely that the DC Parliament will be summoned into special session to determine finally what if any compromise is to be weak to discuss their opposition, agreed with the Communists.

Following a fresh round of talks with party experts this week, Sig. Andreotti is expected to call another collegial meeting of party leaders and it is also likely that the DC Parliament will be summoned into special session to determine finally what if any compromise is to be weak to discuss their opposition, agreed with the Communists.

Following a fresh round of talks with party experts this week, Sig. Andreotti is expected to call another collegial meeting of party leaders and it is also likely that the DC Parliament will be summoned into special session to determine finally what if any compromise is to be weak to discuss their opposition, agreed with the Communists.

Following a fresh round of talks with party experts this week, Sig. Andreotti is expected to call another collegial meeting of party leaders and it is also likely that the DC Parliament will be summoned into special session to determine finally what if any compromise is to be weak to discuss their opposition, agreed with the Communists.

Very low poll in Soweto

By QUENTIN PEELE

JOHANNESBURG, Feb. 19.

ONLY 492 voters went to the polls in Soweto this week-end to elect a Community Council—the body proposed by the Government as a municipal authority for the 1m. plus black township complex. The voters represented just 6 per cent of the eligible electors in two Soweto wards where there was a contest, while another nine candidates were elected unopposed. There were no candidates in 19 of the 39 wards.

The stay-away follows calls by several radical black movements, including the Soweto Committee of Ten, whose members are all in detention, and the Soweto Action Committee, its successor.

They were supported by Chief Gatsha Buthelezi, the influential Zulu leader, who forbade any of his followers from standing as candidates.

Dr. Connie Mulder, the minister responsible for black affairs (as Minister of Plural Relations and Development), has announced that he plans to call by-elections in the vacant seats in spite of the apparent lack of interest. Soweto has 126,700 registered voters out of an estimated 300,000 eligible to vote.

Financial Times, registered daily except on days and holidays. U.S. subscription \$200.00 per annum. Single copies 50c. Air mail for foreign orders. Second class postage paid at New York, N.Y.

Lloyds Bank Group Results 1977

Group profit before tax was £166m

The figures show a useful increase over those for 1976, but because of inflation are worth much the same in real terms. More came from international activities; less came from UK banking because of lower interest rates in the second half-year and lack of demand from industry for loans.

Out of this, taxation takes £88m

Tax at home and abroad is slightly higher than last year.

and proposed dividends take £15m

This is the maximum permitted, but again no increase in real terms.

so profit retained is £63m

This goes to support world-wide operations and a balance sheet which now totals £13,500 million.



Lloyds Bank Group

Robseal SEAL ROOFS

Roof maintenance or emergency repair.

Robseal can fix it fast and guarantee it for 5 years. Established 15 years.

Robseal Ltd, Eastcourt Ave, Epsom, Surrey, Surrey. Tel: 0734 66122.

A 50 ft Bedford (Sandy).

HOME NEWS

CBI to fight State pay-curb pressures

BY OUR INDUSTRIAL STAFF

THE CONFEDERATION of British Industry has set up a working party to prepare a detailed case against the Government's plan to enforce pay limits through public sector contracts. It consists of senior executives from companies with special experience of Government contracting.

As the campaign against the pay curbs continues, Sir Maurice Loring, president of the Federation of Civil Engineering Contractors, has written to Mr. Peter Shore, Environment Secretary, protesting that the pay guidelines are "totally inequitable and unworkable in many respects" and could have serious effects on the civil engineering industry.

The CBI working party is expected to present detailed arguments about why the contract clauses are unworkable when it meets civil servants sometime this week.

There are 11 members under the chairmanship of Sir John Trevelyan, the director-general. Points they will develop include the difficulty of a main contractor vetting the pay levels of all its sub-contractors' employees. They will say this is impossible. They will also argue that it would be illogical to expect a small sub-contractor to indemnify a major company against problems it might cause, and for a main contractor to take responsibility for its sub-contractors' business affairs.

In his letter, Sir Maurice suggests the clause could be made workable if it was limited to the present phase of pay policy enforcement.

Municipal engineers back registration

BY KENNETH GOODING, INDUSTRIAL CORRESPONDENT

THE Institution of Municipal Engineers, with 10,000 members, has added its backing to the suggestion that there should be statutory registration for professional engineers.

In its recommendations to the Government-sponsored committee of inquiry into the engineering profession, headed by Sir Monty Fingleton, the municipal engineers say registration "would make engineers readily identifiable to the public and employers and would establish a designation which would assist individuals in their careers and identify a definite and recognisable standard of competence."

The institution suggests that a register of chartered engineers should be maintained by the Council of Engineering Institutions through its engineers' registration board.

It dismisses the idea that there should be a register under the control of an independent organisation—as proposed by the Institution of Electrical Engineers—because of the danger of "a method of undertaking the task of registration."

The municipal engineers also support the concept of a limited form of licensing for professional engineers where the health and safety of the public are exceptionally at risk.

British Rail to let part of Euston offices at £3.2m.

FINANCIAL TIMES REPORTER

THE LARGEST office complex available in London, in front of Euston station, is to be let by the British Rail Property Board at £3.2m a year.

The Euston Square complex has a total office area of 307,000 square feet, of which the British Railways Board is to take 70,000 square feet to house overspill from its Marylebone headquarters. The balance of 237,000 square feet will be rented at a rate of £13.50 per square foot.

The £30m scheme has been under construction by Sir Robert McAlpine and Sons since 1974. It has two blocks in front of the station.

State training scheme for accountants

Financial Times Reporter

VERY high success rates for a Government accountancy training scheme are claimed by the Civil Service Department today.

Last year, Whitehall trainees accounted for a 100 per cent success rate in the Army Pay Corps examinations at Worthy Down near Winchester, reports the department's Journal, Management Services in Government.

The training scheme, set up by the civil service to counter the problem of recruiting accountants from business and meet the shortage, has an average success rate of 50 per cent.

The "very intensive" course includes a year of postal tuition and a year of residential study for a series of examinations.

The schemes are said to "achieve the best of both worlds," because they produce professionally trained accountants, who also know their way around the public sector.

Firemen face expulsion

EIGHTEEN firemen in Northamptonshire face expulsion from the Fire Brigades Union because they worked during the nine-week strike. Their jobs are unlikely to be affected, as there is no local closed shop.

Hopes rise of drop in jobless total

BY PETER RIDDELL, ECONOMICS CORRESPONDENT

HOPES THAT the unemployment figures for mid-February published tomorrow will show a stabilisation and possibly a decline in the total have increased after the assured optimism of Mr. Denis Healey, Chancellor of the Exchequer, last week.

In a speech on Friday, Mr. Healey suggested that "it could be that unemployment has already peaked." He said there were indications that unemployment, which has been declining in Great Britain since the late summer, was still falling and that notified vacancies were still rising.

The Chancellor emphasised the increased uncertainty about the relationship between employment and output but maintained that if the rate of economic growth was above 3 per cent, this year, a steadily declining unemployment trend should be firmly established in the course of the year.

Although there was a slight rise in the U.K. jobless total in the month to mid-January because of a sharp increase in Northern Ireland, the figure for Great Britain fell as it has in the previous three months.

In the U.K., the number of adults out of work last month was 1.43m, seasonally adjusted.

Significant

The other main economic indication this week is the provisional estimates for capital spending and stocks in the fourth quarter. The investment figures will be examined to see if the 13 months of private sector manufacturing expenditure in the first nine months of last year, compared with the same period of 1977, has been sustained.

The stock figures are significant after the large involuntary stockpiling of the first half of last year. The recent industrial production figures suggest that there may have been some rundown in the level of stockholdings in the autumn.

Both these estimates are expected on Thursday, while the preliminary estimate for Gross Domestic Product based on output data for the fourth quarter is due to be published this afternoon.

This is likely to show that the economy grew by a negligible amount last year.

Top tax indexation would cost less than 1 per cent.

BY PETER RIDDELL, ECONOMICS CORRESPONDENT

THE TOTAL yield to the Government from income tax would be reduced by less than 1 per cent, if the level of the higher rate was adjusted to take account of the current rate of inflation.

This is disclosed by the Treasury in a lengthy Commons answer from Mr. Robert Sheldon, Financial Secretary, on the estimated cost of various tax and economic changes.

Indexation of the higher rate hands to take account of inflation has long been urged both by Conservative spokesmen and by various business and management groups.

According to the last Budget estimate of the total expected income tax yield, adoption of this measure would have meant a revenue loss of less than £180m. in 1977-1978.

Writing to Mr. Norman Lamont, Tory M.P. for Kingston-upon-Thames and a party spokesman on industry, Mr. Sheldon disclosed that, with an inflation rate of 10 per cent, for example, the level of personal allowances would reduce the yield from income tax by about 5 per cent. This amounts to roughly £800m. on the same basis as above.

An increase in specific duties—notably on alcohol, tobacco and petrol—of 10 per cent would add roughly 4 per cent to the yield of central government indirect taxes. This would be an estimated £500m. on 1977-78 yields.

Such a move has been suggested as a means of offsetting the revenue loss from income tax cuts in the Budget.

Mr. Sheldon also disclosed that a rise in prices of 10 per cent would, if reflected in similar increases in money incomes and profits, lead to roughly a 13 per cent rise in total tax revenue.

Complaint against FT rejected

COMPLAINTS by Mr. John Devine, president of the National Union of Journalists, against the Financial Times, The Guardian and the Daily Telegraph have been rejected by the Press Council.

Mr. Devine contended there was an onus on the newspapers to have balanced their reporting of a Westminster Press management statement on the Darlington dispute by publishing a NUJ statement issued on the same day. Alternatively, he thought they should have published his letter to set the record straight.

Reports in all three newspapers were similar: talks the previous day between the NUJ and Westminster Press to resolve the closed shop dispute at Darlington had broken down because the NUJ spokesmen were "unwilling to make the management view, and quoted a Westminster Press statement."

Mr. Devine's long letter in each of the editors criticised in strong terms their "suppression" of a statement by the NUJ, issued to the Press Association. None of the newspapers published the letter.

Mr. M. H. Fisher, editor of the Financial Times, told the council that his reporter had tried a number of times to make contact with the NUJ. Eventually Mr. Ken Morgan, then general secretary, returned the call, and had a general off-the-record talk about Darlington. He told the newspaper that an official NUJ statement would be sent out through the P.A.

Mr. Fisher said the statement did not run until after the labour staff had left the office, and said he had been advised that Mr. Devine's letter was "seriously defamatory." It was privately acknowledged.

The following day the Financial Times published a statement by Lord Gibson on the Darlington dispute and gave Mr. Morgan an opportunity to comment. The Editor said Mr. Morgan made the points Mr. Devine had made in his letter, but without being defamatory.

Mr. K. G. Dodd, executive editor of The Guardian, said in his paper's view Mr. Devine's letter was over-long. Mr. William Deedes, Editor of The Daily Telegraph, said a quote from a local NUJ spokesman appeared in more than one million copies of the London and Manchester editions. He said he considered Mr. Devine's letter very long and it would mislead a high proportion of his readership.

The Press Council's adjudication was not available in time for the newspapers to include it in their general editions as part of the original story, and the editor of The Guardian, Mr. Devine wrote was couched in such terms that the editors were entitled to say they would not publish it. The complaints against the Financial Times, The Guardian, and the Daily Telegraph are rejected.

This week in Parliament

TO-DAY

COMMONS—Second Reading of the House Purchase Assistance and Housing Corporation Bill, and of the Employment Subsidies Bill.

SELECT COMMITTEES: Expenditure, Education, Arts and Home Office sub-committee. Subject: Reduction of Pressure on the Prison System. Witness: Sir Louis Pelech, chairman of the Parole Board (4.15 p.m., Room 12).

TO-MORROW

COMMONS—Debate on Opposition motion on taxation. Debate on the second report of the House of Commons Services Committee. Session 1977-78. An Members' Secretaries and Research Assistant.

LORDS—Participation Agreements Bill, third reading. Suppression of Terrorism Bill, committee. Subsidising (Redundancy Payments) Bill, second reading. Debate on disarmament.

SELECT COMMITTEES: Nationalised Industries, Sub-committee A. Subject: British Rail Report and Accounts. Witnesses: British Rail (4 p.m., Room 8). Science and Technology: General Purposes sub-committee. Subject: Durability and efficiency of discharge lamps. Witness: Mr. D. M. McKeejohn (5 p.m., Room 16).

WEDNESDAY

COMMONS—Scotland Bill, third reading.

LORDS—Debate on Profit Sharing. Debate on the report of the working group on the Library.

SELECT COMMITTEES: Nationalised Industries, Sub-committee B. Subject: Central Electricity Generating Board and Accounts. Witnesses: EGB (10.45 a.m., Room 10). Expenditure, Social Services and Employment sub-committee. Subject: Employment and Training. Witnesses: Ascent, Municipal Authorities, Ascent of County Councils, Ascent of District Councils (11.30 a.m., Room 10). Science and Technology. Witnesses: Mrs. Shirley Williams, Education Secretary, and Mr. Gordon Oakes, Minister of State (5 p.m., Room 12).

THURSDAY

COMMONS—Debate on development in the European Communities July-December, 1977. Second reading of the Commonwealth Development Corporation Bill (Lords) and of the Northern Ireland Emergency Provisions Bill (Lords). Motion on EEC. Document on Conflict of Laws on Employment Relationships in the Community.

LORDS—Third Bill report. Bill (Abolition of Offence) Bill.

FRIDAY

COMMONS—Private Members' Bills.

National Savings bring in £194.7m.

By Adrienne Gleeson

STABLE interest rates offered by National Savings when returns elsewhere were fluctuating, were reflected in January's net receipts. On the new basis, which excludes the Trustee Savings Banks, they amounted to £194.7m.

Total funds administered by the Department for National Savings amounted to £3,740m. at the end of the month, more than £20m. higher than the total at the corresponding period last year.

Most of the increase comes from the influx of funds into the National Savings Bank's investment accounts last summer—an influx which was cut back when the department imposed a £50,000 limit on individual accounts in an attempt to deter institutional investors.

Recently, however, the inflow of funds into other forms of National Savings has improved. The January figures, in particular, show a big increase in deposits placed in ordinary accounts with the month's £28.7m. net deposits the best for thirty years.

The upsurge, which the department attributes to the fact that the first £70 of interest on an ordinary account is tax-free, is reflected in the first 40 weeks of the current financial year to £51.5m. In the first 10 months of the 1976-77 financial year, there was a net outflow of £50.8m.

The high interest rate offered by the NSB's investment accounts—9 per cent until the end of this month—has continued to attract a high level of deposits, though net receipts of £47.4m. during January fell well short of the inflow in the middle of last year.

British Savings Bonds, which offer a return of 8½ per cent, have also attracted investors, and net receipts of £18.7m in January were the highest since June 1972.

PAUL CHEESERIGHT reports on the odd ownership problems surrounding Hemerdon Mining Attempt to unearth the grubstakers

FORTY BROWN shopping bags stuffed with documents, seized by the Ontario Securities Commission, could provide the vital clues for deciding who owns the company working on what could become the biggest U.K. metal mining project this century.

The company is Hemerdon Mining and Smelting, which is registered in Bermuda, but backed largely by Canadian and U.S. money. Its mining prospect is the tungsten-ore-rich clay property at Hemerdon Ball, outside Plymouth.

The problem is that those who put up the money have not received formal proof of share ownership. This has led to legal wrangles involving Mr. W. A. (Billy) Richardson, who first promoted the company, and those who provided cash for the company—the grubstakers.

An intriguing clue to Canadian law has been highlighted in connection with the case of Hemerdon. The origins of the present situation lie in a provision of Ontario law.

Investigation

Harking back a century when individuals would provide funds for a minerals prospector—grubstake him—the law provides that registration is not required when securities are sold by prospectors to finance a prospecting expedition.

In Mr. Richardson's case, the prospecting expeditions centred on Hemerdon Ball and Parys Mountain in Anglesey. The Ontario Securities Commission said at the weekend that it was conducting an investigation into the application of the law to this case.

It was trying to establish from the documents the identity of all the grubstakers.

The 40 paper bags were seized from Mr. Richardson last month by the Commission, which has power of seizure but not of search. Accountants are examining every document—a "fantastic job," the Commission said, indicating that the work would take months rather than weeks.

There are 5m. Hemerdon shares in issue. Of this total 1m. are held by Mr. Richardson, while the rest are held in trust by a Bermuda bank. Only when the ownership is settled and a distribution has taken place will the company be able to go ahead with its plans for over-the-counter trading in the U.S. and an eventual listing in London.

Estimates vary

Mr. Richardson apparently has a list of the shareholders but so far has not handed it over to the company. Since the end of 1976 he has in any case been at odds with the present management, who wrested control of the company from him at that time.

Estimates of the amount of money invested in Hemerdon over about 15 years while it was under Mr. Richardson's control vary but average out at between \$5m. and \$4m. Mr. Carl Schwarzwald, the present chairman of the company, put up \$150,000.

A list of grubstakers compiled by Mr. Schwarzwald, and another put together by Mr. Theodore Belman, a Toronto lawyer, contain about 1,000 names, mostly from Ontario. Both Mr. Schwarzwald and Mr. Belman want Mr. Richardson's list but are acting independently.

A Canadian court has appointed Dr. W. J. J. as trustee to act for the grubstakers, but as the shares are in Bermuda, its power is clearly limited.

However, the company itself, is not the subject of any litigation. Indeed, last December it announced a joint venture with Amstar, a U.S. mining house, to explore Hemerdon Ball in detail.

Businessman's Diary

U.K. TRADE FAIRS AND EXHIBITIONS

Date	Title	Venue
Current	International Knitwear Fair (cl. Feb. 23)	Earls Court
Current	Int. Men's & Boys' Wear Exbn. (cl. Feb. 23)	Earls Court
Today	Spring Floorcoverings Exhibition (cl. Feb. 23)	Metropole Centre, Brighton
Today	Furniture Production Exhibition (cl. Feb. 24)	Nat. Exbn. Centre, Bham.
Feb. 21-23	British Growers Look Ahead Exbn. and Conf.	Harrogate
Mar. 5-10	Oceanological Equip. & Services Exbn.	Metropole Centre, Brighton
Mar. 6-9	National Carpet Fair	Blackpool
Mar. 7-April 1	Daily Mail Ideal Home Exhibition	Olympia
Mar. 12-15	London Young Fashion Fair	Earls Court
Mar. 13-17	International Electrical Exhibition	Nat. Exbn. Centre, Bham.
Mar. 13-17	International Pneumatics & Hydraulics Exbn.	Nat. Exbn. Centre, Bham.
Mar. 13-17	Int. Instruments, Electronics & Automation Exbn.	Nat. Exbn. Centre, Bham.
Mar. 14-18	Int. Public Address Equipment Exbn.	Cusard Int. Hotel, W.8
Mar. 16-17	Vending Equipment, Refreshment Services Exbn.	Cumberland Hotel, W.1

OVERSEAS TRADE FAIRS AND EXHIBITIONS

Date	Title	Venue
Feb. 21-24	Offshore South-East Asia Show	Singapore
Feb. 26-Mar. 2	International Spring Fair	Frankfurt
Feb. 26-Mar. 4	Middle East Transport Exbn. and Conf.	Dubai
Feb. 28-Mar. 3	Int. Tunnelling Industries Exbn. and Conf.	Basle
Mar. 2-12	International Motor Show	Geneva
Mar. 5-8	European Fashion Fair	New York
Mar. 6-12	International Agricultural Exhibition	Paris
Mar. 6-11	British Industrial Exhibition	Kowloon
Mar. 6-12	International Audio Exhibition	Paris
Mar. 7-10	Powder Technology & Bulk Solids Exbn.	Paris
Mar. 8-12	Int. Oil & Gas Heating Exhibition	Shanghai
Mar. 12-14	International Shoe Fair	Utrecht
Mar. 12-19	International Spring Fair	Leipzig
Mar. 14-18	Int. Printing & Paper Industry Fair	Zagreb
Mar. 15-18	International Building Exhibition	Singapore

BUSINESS AND MANAGEMENT CONFERENCES

Date	Title	Venue
Feb. 21	Henley Centre for Forecasting: The Future of the U.K. Property Market	Bowater Cinema, S.W.1
Feb. 21	British Council of Productivity Associations: Office Productivity—Microfilm	Metropole Hotel, W.2
Feb. 21-24	Bradford Univ.: Financial Control of R & D	Bradford
Feb. 22	Institute of Personnel Management: Employment Law in 1978	Manchester
Feb. 22-23	Financial Times: Business with Spain	Madrid
Feb. 23	European Study Conference: EEC Competition Law	Royal Lancaster Hotel, W.2
Feb. 24	Thomas Polytechnic: Business Trends in France	Exbury
Feb. 26-Mar. 2	British Transport Staff College: Finance & Accounting for Management	Woking
Feb. 27-Mar. 2	ICA: Personal Income Tax course	Grand Htl. Eastbourne
Feb. 27-Mar. 3	London Chamber of Commerce & Industry: Understanding the Arab World	68, Cannon St., E.C.4
Feb. 27-Mar. 10	P.E. Consulting Group: Production Engineering	Training Centre, Egham
Feb. 27-28	Financial Times: The Bankers' Investors Chronicle: World Banking in 1978	Grosvenor House, W.1
Feb. 27-Mar. 1	AMR International: Creating Business Growth in Europe	Royal Westminster Htl., S.W.1
Feb. 28	Institute of Directors Annual Convention: The State & the Individual	Royal Albert Hall, S.W.7
Feb. 28	Executive Weights & Measures	Russell Hotel, W.C.1
Feb. 28	Inbuccon Group: National Policy and Pay Restructuring	Dorchester Hotel, W.1
Mar. 1	Int. Assoc. for Students of Economics & Management: Business Education Seminar	Birmingham
Mar. 1-2	Investment & Property Studies: Design Liability in the Construction Industry	Royal Lancaster Hotel, W.2
Mar. 2	Melrose-Hill: Corporate Fraud	Royal Garden Hotel, W.8
Mar. 6-8	World Recycling Conference	Slough
Mar. 6-10	Urrwick: Project Management	Glasgow
Mar. 6-10	Department of Industry: Flow Measurement	Inst. Marine Eng., E.C.3
Mar. 7-8	Lenorm: Cost-Effect. Print in Marketing	
Mar. 8	Henley Centre for Forecasting: Forecasts for the U.K. Leisure Markets 1978	Carlton Tower Hotel, S.W.1
Mar. 9	Confederation of British Industry: Nigeria 1978	21, Tophill St., S.W.1
Mar. 13	College for the Distributive Trades: Inflation Accounting	30, Leicester Square, W.C.2
Mar. 13-14	State of the Art: Technical Marketing Conference	Royal Garden Hotel, W.8
Mar. 13-17	Keppner Trezoe: Decision Making for Senior Management	Hartley Wintney
Mar. 14	Building Advisory Service (BAS): Arbitration of Building Disputes	Cavendish Conf. Centre, W.1
Mar. 14	Anthony Skinner: The Detection and Prevention of Fraud	Piccadilly Hotel, W.1
Mar. 15	Institute of Credit Management National Conf.	Hilton Hotel, W.1
Mar. 15	Centre for Interim Comparison: Management Ratios and Interim Comparison	Management House, W.C.2
Mar. 15-17	Keith Shipton: Developments in Marine Risk Management	Royal Garden Hotel, W.8
Mar. 16	Investment & Property Studies: Corporate Credit Risk Assessment	Press Centre, E.C.4
Mar. 20-22	Resources Policy: The Economics, Politics & Social Implications of Resource Use & Conservation	Oxford
Mar. 22	London Chamber of Commerce & Industry: Export Shipment Finance for Small & Medium-Sized Firms	69, Cannon St., E.C.4
Mar. 21	Gresham Management Services: Employee Participation in the Retail & Distributive Industries	Hyde Park Hotel, S.W.1

FINANCIAL TIMES CONFERENCES

Financial Times Conferences have established a unique authority of their own. Since 1971, 208 conferences have been arranged in 28 countries. Speakers who have addressed them have included many heads and other members of governments and leaders of political, economic and business communities throughout the world. They are recognised internationally as providing invaluable opportunities for informed public discussion of matters of substantial current interest.

Forthcoming Financial Times conferences include

Date	Title	Venue
April 3-4	Asian Business Briefing	Hong Kong
April 6-7	The Meade Report and Tax Reform	London
April 10-11	Business and the European Community Directives	London
May 8-9	The 1978 Euromarkets Conference	London
May 15-16	The North Sea and its Economic Impact	London
June 14-15	Paris in World Finance	Paris
June 19-20	World Insurance	London
July 10-21	Financial Management for the non-financial executive	London
August 30-31	World Aerospace	London
October 2-4	Financial Times—Chartered Institute of Transport Conference	London
	International Transport	London

To: The Financial Times Limited, Conference Organisation, Bracken House, 10, Cannon Street, London EC4A 3DF. Tel: 01-236 4382. Telex: 27347 FT Conf G

Please send me further details of

Name (Block Capitals Please) _____

Title _____

Company _____

Address _____

سكاي ان الصل

Shipbuilding association may be recognised soon

MEMBERS of the British Shipbuilders' Board will be faced in with the highly-sensitive question of recognition of the Building and Allied Industries Management Association when they meet on Thursday. Recognition of the management association is being resisted strongly by the Confederation of Building and Engineering Unions and the full TUC general council and, although it has been an issue since before the nationalisation of the industry, the Board has deferred a final decision. Union leaders believe, however, that this may come soon.

December, the Board put

off a recognition decision until it had approached the Advisory, Conciliation and Arbitration Service. These discussions have taken place.

When they meet on Thursday, Board members will have before them a recent letter written on behalf of the TUC general secretary, Len Murray, to the council's general secretary, to Mr. Michael Casey, chief executive of British Shipbuilders.

This expresses concern that the Board has not come to a conclusion on the issue and says that an early decision not to recognize the union would be a disaster. It says that the association is essential in the interests of good industrial rela-

tions in the industry." The TUC says Mr. Murray, firmly maintains that the proliferation of unions should be avoided, with recognition of staff grades restricted to confederation-affiliated unions already in shipbuilding.

The management association is part of the Engineers' and Managers' association which is in the TUC but is not affiliated to the confederation. The association's members are banning overtime in protest against delays by British Shipbuilders in reaching a recognition decision. Members of confederation unions have been instructed to ignore the ban.

Y OUR OWN CORRESPONDENT

POTENTIALLY damaging dis-
over offshore recruitment
been averted between the
Sh Seafarers' Joint Council
the Aberdeen-based Inter-
n Offshore-Oil Committee.
e two multi-union group's,
senting largely the same

The Department of Energy and offshore employers were concerned over the two organisations competing for the same class of offshore vessel.

A compromise solution now allows the joint council, which has agreements covering 13 semi-submersibles and drill-ships, to keep all semi-submersibles under its sphere of influence other than those being used as permanent production platforms.

By Our Labour Staff

FORD's HALEWOOD plant in Liverpool should be back in production to-day for the first time in two weeks, after the unanimous decision by management and workers at a week-long meeting of workers at the week-end to end their strike over work schedules.

The stoppage by 1,000 press-shop workers caused 9,000 others to shut off in the motor's castings, assembly and transmission sections. Production at the Transit van plant in Southampton was also hit.

The strike—the longest industrial dispute in Halewood's history—is estimated to have lost Ford about £50m in value of vehicles at showroom prices.

The breakthrough in the dispute came late last week when agreement was reached on continuing hourly job rotation for heavy work in return for a guarantee of increased productivity.

THE GOVERNMENT'S White Paper on future airports policy is expected to come under discussion when Mr. Stanley Clinon Davies, Under-Secretary of Trade, addresses a symposium organised by the Royal Aeronautical Society on Wednesday.

Mr. Neville Ledsome, the officer at the Department of Trade, primarily responsible for the White Paper, will also speak at the meeting.

The following is a record of the principal business and financial movements during the week. The Board meetings are mainly for purpose of considering dividends and official indications of always available whether dividends concerned are Interims. The sub-divisions shown below are based mainly on last timetable.

A black and white photograph taken from the perspective of someone inside a vehicle, looking out over a highway. In the immediate foreground, the top of the vehicle's dashboard and a portion of the windshield are visible. Below the dashboard, a metal guardrail runs horizontally across the frame. Beyond the guardrail, the highway stretches out. In the distance, a large, dark, rectangular structure, possibly a bridge or overpass, is visible. To the right of this structure, a white vehicle, possibly a truck or a large van, is driving on the highway. The background shows a hilly landscape with some vegetation. The overall image has a grainy, high-contrast quality, typical of older film photography.

To finance a payment by Mineralimportexport for development of a coal mine in the United States of America undertaken by the Island Creek Coal Company

Provided by

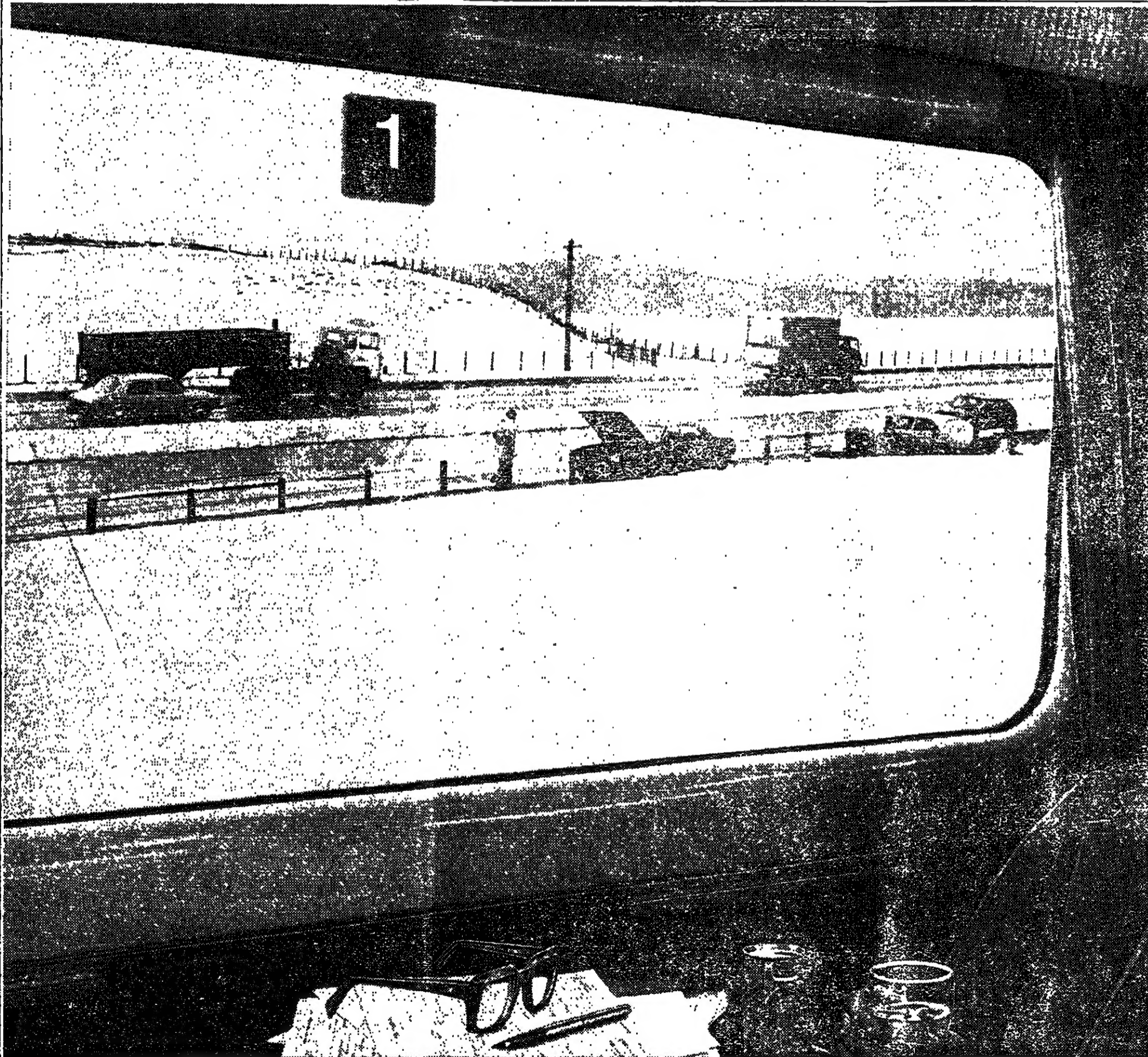
THE FIRST NATIONAL BANK OF CHICAGO
ANGLO-ROMANIAN BANK LIMITED BANQUE EUROPÉENNE DE TOKYO
BANQUE FRANCO ROUMAINE DG BANK DEUTSCHE GENOSSENSCHAFTSBANK
THE FIRST NATIONAL BANK OF BOSTON INTERNATIONAL COMMERCIAL BANK LIMITED
LLOYDS BANK INTERNATIONAL LIMITED MANUFACTURERS HANOVER TRUST COMPANY
THE NIPPON CREDIT BANK. LTD. UBAF ARAB AMERICAN BANK
BANQUE COMMERCIALE POUR L'EUROPE DU NORD (EUROBANK)

Arranged by

**FIRST CHICAGO LIMITED**

Agent Bank

February 1978



Fog, rain, ice, snow... Yet, throughout the winter, the regular Inter-City trains carry you to your distant business meetings at up to 125 mph. Smoothly and reliably. In warmth and comfort. In the restaurant if you're hungry. When it's foggy, your driver has an advanced system of signal lights shining clear to tell him what's ahead.

right lines as surely as if it's on rails. Guess why!
No train is ever diverted to an out-of-your-way airport; because of the weather.
And next time you hear someone talk about Motorway Madness, remember it doesn't just mean the stupid things other people do on motorways.
It could be the decision to take the motorway in the first place. When it's the *last* place you ought to be.



Inter-City

decision to take the
place. When it's the *last*

W Have a good trip!

LOCAL LOTTERIES
in accordance with the
s and Amusement Act
te tenders from person
ed in operating a Lotter
half of the Borough

rs should be made on
uncil's Form of Tender
an be obtained from the
ecutive, London Borough
ingdon, Civic Centre
e, Middlesex UB8 3UW
n the completed tender
be returned in a plain
velope marked 'Tender
1 Lottery,' not later than
Tuesday, 28th February
Telephone Uxbridge 5011
3 for tender form. Terms
ance are subject to the
s normal terms and con

George Hooper
Chief Executive
Intre,
a. Middx. UB8 1UW

FINANCING

DA Loan Agreement 612/NI
of March 5, 1976.
Badea Loan Agreement o
June 28, 1976.
J.N. 1977-458-5-03.
ICE OF INVITATION TO TENDE
77/52 OF SEPTEMBER 15, 197
PLIES OF HIGHWAY MAINTEN
NCE EQUIPMENT TO NIGER

CORRECTION

complex sets of tender documents will be sent to the following: the Office of the Chief of Mission, B.P. NIAMEY (Republic of Niger); the payments of the amount of 1,000 CFA francs, and not 200 000 CFA francs, as stated in the initial invitation; the bank, checked out in the name of the resortor General du Niger -- Niamey.

The mission of the tenders should be made to Niamey, Office of Public Works and Town Planning, by March 1978, prior to 1800 hours local time. Instead of February 17, 1978, as stated in the initial invitation a date.

The opening of the tenders will take place on March 17, 1978, at 0900 hours local time, on February 18, local time.

Reminder stays unchanged.

THE AVERAGE DRIVER DOES 10,000 MILES A YEAR.
THE AVERAGE VOLVO DRIVER DOES 16,000.
COULD THIS HAVE SOMETHING TO DO WITH IT?

Volvo have always been ready to support the motorist.
Right in the back where it counts.

When we designed our seats we worked with doctors
who measured the activity of the spinal muscles.

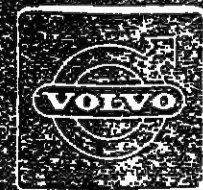
This helped us make the first driving seat with really
effective lumbar support.

But being Volvo we couldn't just sit back and relax. So
for 1978 we're introducing an even better seat.

It's more contoured and wrap-around with a longer
cushion that's raised to give better support to the legs.

We've improved the cushioning and made the head
restraints 50% softer. We've even refined the
lumbar support control.

The way we look at it is this: the more
heart-ache we have, the less back-ache you have.



IT'S GETTING BETTER ALL THE TIME.

SEAT ILLUSTRATED APPLIES TO VOLVO 200 SERIES ONLY.

FOR FREE COPY OF THE VOLVO FACTS WRITE TO VOLVO CONCESSIONAIRES LTD, LONDON W13 9JQ. SALES ENQUIRES TEL: HIGH WYCOMBE (0494) 33444. SERVICE ENQUIRES TEL: IPSWICH (0473) 72026. PARTS ENQUIRES TEL: CRICK (0736) 822131.

Technical Page

EDITED BY ARTHUR BENNETT AND TED SCHOETERS

AVIATION

Warns of imminent turbulence

SCIENTISTS from the Ames Research Centre of the U.S. National Aeronautics and Space Administration in California and the National Oceanic and Atmospheric Administration's Environmental Research Laboratory in Boulder, Colorado, are now testing an instrument concept designed to give aircrew pilots several minutes warning of an impending encounter with "clear air turbulence."

This atmospheric phenomenon has been a problem since the beginning of the jet age. These naturally-occurring tempestuous air currents can add unexpected bumps—sometimes exceptionally severe—to an aircraft's smooth passage, even though the sky is cloudless, causing sometimes injury to passengers. It is because of the possibility of CAT, as it is known, that passengers are advised when in flight to keep their safety-belts fastened.

Because CAT cannot be seen, there has long been a need for a simple instrument to detect it in advance. The device now to be tested uses an infra-red laser

HANDLING

Improved skip loader

OPERATING TIMES with an all-up weight of 6.98 tons and a payload of 9.02 tons are 35 seconds for loading and 45 seconds for unloading on an improved version of the Edbro skip-handling equipment for 16-ton gross trucks.

A fast lift-off valve permits off-loading an empty skip in 10 seconds. A redesigned jackbox has reduced rear overhang by 84 inches, and the strengthened jacks are mounted at angle of 12 deg. instead of vertically. The platform now has a uniform length of 10 ft. 4 ins. to suit

Lifts up the workers

LATEST HYDRAULIC aerial work platform in the range made by ACS Engineering is the Achlift 18000, which has a lift height of 18.2 metres. It is intended particularly for local authorities and contractors maintaining 40ft. lighting columns.

The unit can be mounted on any chassis with a gross vehicle weight of 10 tonnes or over a wheelbase minimum of 4 metres. It is provided with four hydraulic stabiliser legs, which both relieve the chassis of torsional stresses and level the unit on slopes.

Capacity is two men plus a load of tools and equipment to a maximum total of 265 kg. The cage measures 0.8 by 2.05 by 1.1 metres. Controls are fitted in the cage with a duplicate set on the chassis. Horizontal reach is 10.4 metres. Slew is through 360 deg. A hand pump is fitted capable of slowing the unit if the power fails.

Optional extras include intercom, spot and floodlights, tool boxes and safety belt anchorages. Details from the maker at the Sheepmarket, Stamford, Lincs., (0780 51815).

ELECTRONICS

Games on a chip

REVEALING that it has now produced over 15m. of its first generation of television game microcircuit chips since manufacture started in 1976, General Instrument Microelectronics has taken the trend one step further with a game chip that allows images of motorbikes to be driven across the screen.

The circuit generates a tiny image of a motorbike which moves across horizontal "roads" on the screen at a speed determined by a throttle control potentiometer setting. Obstacles, including a line of eight buses are provided, yielding a total of four games. There is an "easy/hard" switch to select the number of obstacles per track.

The company says it has further games in the pipeline, including shooting, games of strategy and games of chance.

The 25-lead package, called Stunt Rider, is officially designated AY-3-8780A and is suitable for both colour and monochrome sets.

More from 1 Warwick Street, London W1R 5WB (01-439 1891).

COMPUTERS

Price change reaction is immediate

COMPUTER control will allow a Sheffield drop-forging company to react to changed steel prices across the whole range of their 3,000 products in less than 30 minutes.

Operating manually, Firth-Deribon, estimates that such a change previously meant up to three months' extra work for staff at its Darley Dale and Sheffield plants.

At any one time, the firm has about 3,000 "live" part numbers made from up to 300 different materials and sizes. Inflation over the past five years has had a significant effect on internal management costs.

Now, using an ICL 2903, the company can completely update the price of every forging in about 25 minutes. The system used has been developed jointly by Firth-Deribon and GMS Computing of Sheffield, both companies within the steel division of Johnson and Firth Brown.

Using distributed data processing, the system brings operations under local control so that they become more practical help to industrial management. The specialist task of providing technical support is left to the computer bureau which backs up the 2903.

PROCESSING

Light helps refine materials

THE LASER is taking over from the Bunsen burner in the chemical laboratories of the University of Illinois. It is a move which will have important industrial implications in the refinement of chemical substances where purity is the major factor.

This includes highly refined silicon for the manufacture of electronic circuits. In the University of Illinois laboratory, a team led by Robert Gordon has set up a computer-controlled laser system which bombards substances with powerful light beams. This excites selected molecules and causes chemical reactions. In the process, light is used as a catalyst.

The important aspect of the process is that the laser excites only those molecules which are tuned to its own wavelength: in this way impurities can be extracted from a compound to a level of less than one part per million with very big savings in cost.

Pre-set coil winding

USING SIMPLE tooling, and controlled by a microprocessor, the latest Aumann linear winding machine can accommodate wires from 0.04 to 0.2 mm diameter and produce coils up to 45 mm dia. and 50 mm long. Maximum speed is 12,000 rpm.

A pivoted frame carries 12 coils, and when winding is complete the frame is turned through 180 degrees. Wound coils are unloaded while a pre-loaded new set is being wound. Start and finish wires can be automatically wrapped round radial terminals. A special pivot frame can be supplied.

RETAILING

Laser gets sales data

NOW well established in the U.K. and with plans well advanced to set up a manufacturing unit in Ireland, Data Terminal Systems of Massachusetts since its inception in 1970 has reached a sales figure worldwide of \$42m. in 1977 and expects to top \$50m. for 1978.

DTS has concentrated on the idea of a stand-alone electronic cash register which enables both the small store manager and the large chain store operator to replace mechanical cash registers with electronic registers without investing in a complete computer-based point-of-sale system.

Customers for the 400 and 500 systems, launched in Britain

about a year ago include Trust House, EMI and Holiday Inns and in the hotel and catering business DTS, through its U.K. subsidiary Transaction Data Systems, claims to be lead supplier in the U.K.

It is now attacking the supermarket and department store market: a £1m. system for Habitat involving 146 machines and 6000 stock items will go live in April.

Latest system to appear in the U.K. is the 510, which makes use of a laser scanner. At the checkout, the assistant simply passes the customers' purchases over a rectangular hole in the surface of the counter, with the bar code label roughly pointing at the hole. The label itself can be in any orientation, and items can be dealt with at the rate of about one a second.

A mirror below the orifice projects a scanned beam at about 30 degrees to the horizontal; the beam scans several lines in both left-right and up-down directions, so that it is bound to pick up the label and scan it, even sideways. The machine then looks up the name of the item and its price and shows them in half-inch characters on two displays, one for the assistant and another for the customer in the form of a rotatable "flag" on a short pole adjustable for best customer visibility.

All the keys on the 510 are programmable so that the device can deal with any method of payment, tax additions or exceptions, discount and refunds. Any of them can be pre-set to refer to a specific product. Up to 30 of the registers can be interconnected, and on any one of them an executive can call up a variety of updated store-wide reports at any time. Data can be sent to a mainframe computer if necessary. More from Transaction on 0626 885063.

beam scans several lines in both left-right and up-down directions, so that it is bound to pick up the label and scan it, even sideways. The machine then looks up the name of the item and its price and shows them in half-inch characters on two displays, one for the assistant and another for the customer in the form of a rotatable "flag" on a short pole adjustable for best customer visibility.

All the keys on the 510 are programmable so that the device can deal with any method of payment, tax additions or exceptions, discount and refunds. Any of them can be pre-set to refer to a specific product. Up to 30 of the registers can be interconnected, and on any one of them an executive can call up a variety of updated store-wide reports at any time. Data can be sent to a mainframe computer if necessary. More from Transaction on 0626 885063.

beam scans several lines in both left-right and up-down directions, so that it is bound to pick up the label and scan it, even sideways. The machine then looks up the name of the item and its price and shows them in half-inch characters on two displays, one for the assistant and another for the customer in the form of a rotatable "flag" on a short pole adjustable for best customer visibility.

All the keys on the 510 are programmable so that the device can deal with any method of payment, tax additions or exceptions, discount and refunds. Any of them can be pre-set to refer to a specific product. Up to 30 of the registers can be interconnected, and on any one of them an executive can call up a variety of updated store-wide reports at any time. Data can be sent to a mainframe computer if necessary. More from Transaction on 0626 885063.

beam scans several lines in both left-right and up-down directions, so that it is bound to pick up the label and scan it, even sideways. The machine then looks up the name of the item and its price and shows them in half-inch characters on two displays, one for the assistant and another for the customer in the form of a rotatable "flag" on a short pole adjustable for best customer visibility.

All the keys on the 510 are programmable so that the device can deal with any method of payment, tax additions or exceptions, discount and refunds. Any of them can be pre-set to refer to a specific product. Up to 30 of the registers can be interconnected, and on any one of them an executive can call up a variety of updated store-wide reports at any time. Data can be sent to a mainframe computer if necessary. More from Transaction on 0626 885063.

beam scans several lines in both left-right and up-down directions, so that it is bound to pick up the label and scan it, even sideways. The machine then looks up the name of the item and its price and shows them in half-inch characters on two displays, one for the assistant and another for the customer in the form of a rotatable "flag" on a short pole adjustable for best customer visibility.

All the keys on the 510 are programmable so that the device can deal with any method of payment, tax additions or exceptions, discount and refunds. Any of them can be pre-set to refer to a specific product. Up to 30 of the registers can be interconnected, and on any one of them an executive can call up a variety of updated store-wide reports at any time. Data can be sent to a mainframe computer if necessary. More from Transaction on 0626 885063.

beam scans several lines in both left-right and up-down directions, so that it is bound to pick up the label and scan it, even sideways. The machine then looks up the name of the item and its price and shows them in half-inch characters on two displays, one for the assistant and another for the customer in the form of a rotatable "flag" on a short pole adjustable for best customer visibility.

All the keys on the 510 are programmable so that the device can deal with any method of payment, tax additions or exceptions, discount and refunds. Any of them can be pre-set to refer to a specific product. Up to 30 of the registers can be interconnected, and on any one of them an executive can call up a variety of updated store-wide reports at any time. Data can be sent to a mainframe computer if necessary. More from Transaction on 0626 885063.

COMMUNICATION

Telecoms in Amsterdam

LIKELY to become a £50m. industry by 1980, telecommunications is to be the subject of a conference at the Amsterdam Hilton on April 2, 3 and 4 organised by Arthur D. Little.

It will focus on the major competitive issues and market opportunities in the industrialised countries.

Introduced by Arthur D. Little senior executives, the meeting will include presentations by Bjorn Svedberg, president of Ericsson, W. Dekker, Board member of Philips, and Dieter Von Sanden, managing director of Siemens telecommunications group.

Further details of the conference and registration forms will be available from Valerie Zebede, Arthur D. Little, Berkeley Square, London E1, (01-493 6881).

Light beam links bid

RCA has introduced its first of ultra-thin strands of fibre optics data link designed for use in digital data computer links, digital telephony, secure communications, process control, and high voltage optical isolated data systems.

Optical communications using fibre optics enable the transmission of light waves from one point to another through lightweight flexible cables consisting of glass or plastic.

Dr. Ralph E. Simon, division vice-president of RCA Electronics and Devices, says the entire fibre optics communications field represents an annual sales volume of over \$10m. in the U.S. By 1983, it is expected that sales for this segment of the electronics industry will grow to more than \$500m. annually.

CONFERENCES

Talks on technology

TO BE held at Kent University, Canterbury, from April 12 to 14, the fourth international symposium on Jet Cutting Technology, organised by BHRA, will deal with a wide range of applications from hydraulic coal mining to underwater cleaning of offshore structures.

Engineers and scientists from Germany, Japan, the U.S. and the USSR will be presenting papers. There will also be papers from U.K. workers, including one dealing with the precision jet cutting of flexible materials using very fine high pressure jets.

HYDROTRANSPORT

The fifth international conference on the Hydraulic Transport of Solids in Pipes will be held in Hannover, West Germany, from May 8 to 11. Organised by BHRA in conjunction with the Franziskus Institute, the conference will cover both theoretical and practical aspects, including pilot plant studies, applications and economics.

Engineers' papers will be one from Warren Spring Laboratory, TRRL and Imperial College, which indicates that even when pumping large particles, overall costs are comparable with those for heavy lorries, while a contribution from the U.S. shows that a five mile line transporting and will repay its capital cost in less than five years.

As an alternative to water transport in pipes, powders and particles can be blown along

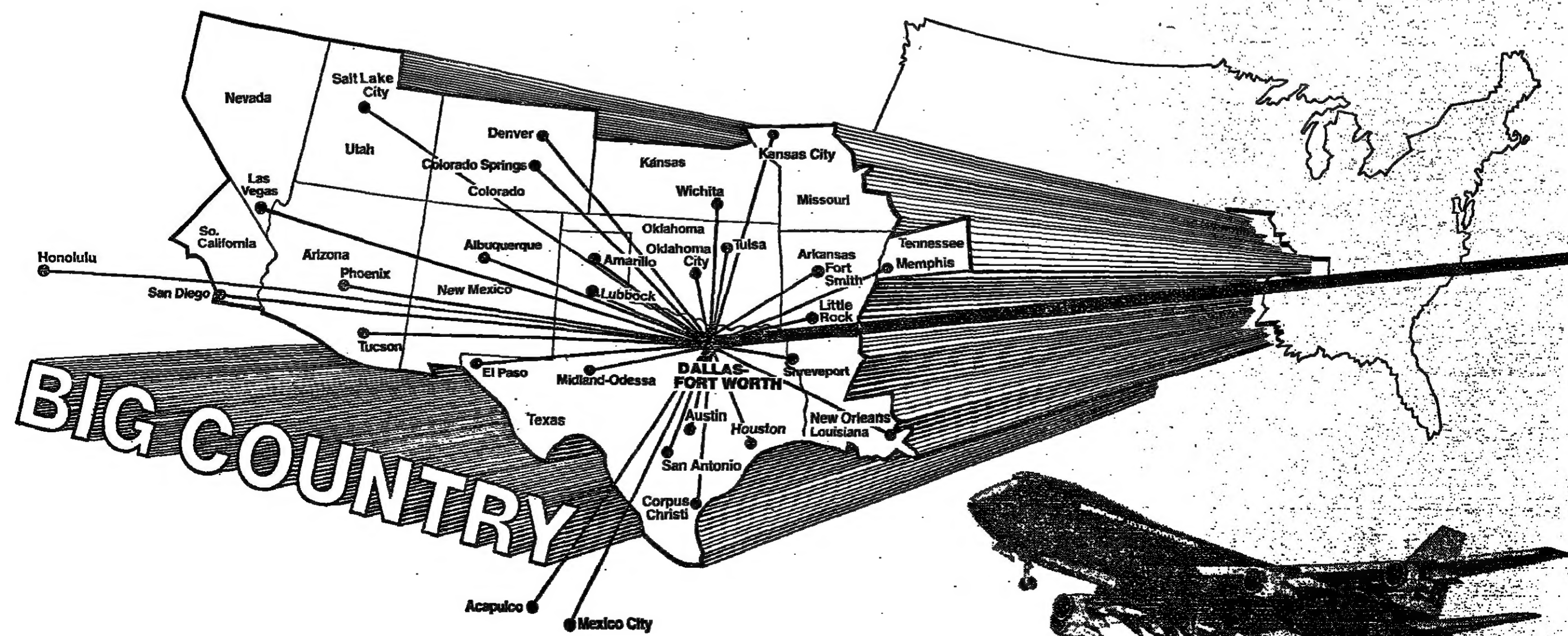
Norgren's Compressed Air Aces

C.A. NORGREN LTD
 100, NEWBURY ROAD, NEWBURY, BERKSHIRE RG13 2AA
 Telephone 0494 52551 Telex 92225

On March 1st, a new Gateway opens up to America's Big Country.

DALLAS-FORT WORTH, BRANIFF'S BIG ORANGE

LEAVES 11:45 A.M.



BIG COUNTRY

The Executive's and Office World

EDITED BY CHRISTOPHER LORENZ

Creating a common culture at IBM

BY JOHN THACKRAY

RE IS a story that has been an unusual degree," says Professor Leonard. Sales of it circles for many years. At certain, hallowed School of Business, who has the middle and senior executives of IBM, dressed in button-down shirts, dark trousers and short hair, sing special hymns.

ch behaviour may be de- in Japan, but in the U.S. considered deviant. Rumour has it that the company's were written by one of founding Watson clan, and their themes: urge, the natives onward and upward and pursuit of excellence and whether the story is true, or ever has been, is the point. For in a crude, yphal way it underlines a large, disparate corpora- needs to weld its top people her.

IBM to-day this corporate al acculturation, the pro- and maintenance of d attitudes and procedures, ually done largely through the company calls agement development.

s term is one of the st and most over-used in ment textbooks, but in- ase, as in most big U.S. rations, it is taken to cover d inter-related procedures, which theoretically con- ming or whatever. As if to show how seriously terial growth. These in- it takes its educational mission, job counselling by man- the company is currently build- ing five structures on a campus- inates: appropriate job- like area, on its headquarters in and job assignments: property at Armonk, New York, mance evaluations; and which will be used for nothing the subject of this article else except management edu- agement education. IBM—all 183,200 square feet of y training conscious, to space. Up to now it has used a

wide range of accommodation, managed—salesmen, clerical workers and others—to those of the managers.

The course has a strong practical edge. Heavy emphasis is placed on the U.S. equal opportunity laws and other employee rights; on the technicalities of merit pay; and the development of a wide range of communications skills. Participants are also told about the latest legislation affecting handicapped workers, pension and safety rules and about the effect of IBM organisational changes.

Methods

Many large U.S. corporations have approached IBM to enquire about its management training methods. "People from other organisations ask us to tell them about our programmes," says Edward F. Kreig, the company's director of management development. "After we tell them about our 'nuts and bolts' approach to emphasising basics, they are surprised that's all we do. We don't do a lot of esoteric training. We believe in plain fundamen-

Ed Kreig is a medium-sized man with broad shoulders and rimless glasses who talks in a slow, deliberate drawl. He likes words like "fundamentals," and he sees IBM as the creation of traditions in management which have been modified but never corrupted since the tabernacles were laid down by the founder, Thomas Watson Sr. In a company widely reputed on the outside to be a very conformist institution—the "no alcohol" rule on company premises being only the most obvious illustration—Ed Kreig will oddly talk at length about IBM's "respect for the individual"; this is one of the "fundamentals" that the new management recruit must embrace.

IBM sees it as an indication of its inherent strength, that most of its training is done in-house and not, like several other big corporations, largely on the outside. "We are a company with a certain amount of universality to it. The concept of the merit system of pay and promotion exists in Europe essentially as it does in Akron, Ohio. The employee-manager relationship is as important in Israel as it is



It says do we do requests?

In addition to this samples of the attendees at these courses are surveyed in person six months after, and their evaluations collated and used to amend the curriculum. As Ed Kreig says, "We make something of a fetish of communication."

By the time the executive reaches middle management he will be well on the way to absorbing the corporate culture. Yet at this time in his course, the culture and basic skills by themselves begin to be inadequate for grappling with many aspects of the world outside. So this group is taught such things as decision making in an ill-structured environment—one of the more sophisticated IBM offerings. And at senior management levels, civil rights leaders will talk about class and race in America; or an academic on how to do business in a highly legislated environment.

Yet these more refined ingredients are not the substance of the programme, according to Kreig. "If you depart from the fundamentals of respect for the individual and equal opportunity, the merit system, and good communication skills, the employee's perception of his or her manager is going to deteriorate. We've proven that with our employee opinion surveys," he says. "When we've seen the morale factor contributing to a dip, and we've gone back and asked how much of the emphasis is on the fundamentals there, we've sometimes seen a watering down of them. And what happens then? We say: 'Back to fundamentals.' It works. It's historic. It's irrefutably correct."

Careless talk that causes heartaches

EXECUTIVE HEALTH BY DR. DAVID CARRICK



THE UNDERSTANDING physician is, alas, becoming a stranger from the past. With notable exceptions, the "bedside manner," which may be just as useful as a pocketful of pills or an infinite number of intricate, impersonal investigations, is as modern as the dinosaurs.

The introduction of the NHS when the invaluable honorary physicians and surgeons ceased to be, began the slide. The selection of medical students on the grounds of technological meritocracy, chosen only because of their high "A" level scores, hastened the process; and the regrettable tendency to ape American computerised medicine certainly has not reduced the angle of the fatal slope.

Too often—perhaps because the doctor has more patients

than time—a patient may be frightened badly by some hurried, careless comment: then there is the one who examines in grim silence, or talks in technical terminology; or, I regret to say, adopts a callous attitude, all of which can cause the ignorant sufferer to be much afflicted and further convinced in his own bleak conceit.

Examples are so numerous that I can cite a mere handful. Take callousness. I know nothing worse than placing a callous card above the bed of an aged person giving the name and age—a desperate revelation to elderly females in particular. Recently I visited an old doctor in hospital. A doctor of fame, both for his medical skills and gallantry, who had been awarded an M.C. in World War One, stop.

Sometimes a patient is told

He lay in a bed above which were the words: H. R. Forbes, aged 85, which piece of beastly bureaucracy distressed me and brought melancholy to the old man's last few days.

The silent or terse physician may, by a solemn shake of his head, a few "nut tuts" and a "humpf" or two, create dreadful anxiety in the apprehensive. Technical language, without explanation, can likewise be peculiarly pernicious. Of the numerous examples, I choose a few of the more dangerous. If a patient is told diabetes mellitus. In fact, he that he "is in heart failure," that is as sweet as the sound of a funeral bell to him. What is meant is that the heart is failing, not that it's job efficiently; it does not mean that it is about to stop.

The patient with a sore

he has a "heart murmur." If throat whose adjacent lymph nodes (commonly called "glands") are enlarged, can those of significance, then one may expect even the boldest patient to develop cardiophobia. Again, the word "thrombosis" is terrifying because the patient usually thinks only of the dreaded "coronary thrombosis," whereas thrombosis of superficial veins in the legs or arms are as common as they lack importance.

Now I saw a very worried man recently who had been examined for assurance purposes (upon which a mortgage depended) and had been carelessly told that he had "sugar in the urine" and so had diabetes mellitus. In fact, he had diabetes innocens because that he "is in heart failure," that is as sweet as the sound of a funeral bell to him. What is meant is that the heart is failing, not that it's job efficiently; it does not mean that it is about to stop.

The patient with a sore

me "You've got a common cold!" Surprised, I said: "So what?" He dismissed my query hotly, adding: "I am of great importance; how then could I have a common cold?" I saw the problem and, for once, employed medical jargon. "Supposing we called it an afebrile coryza of idiopathic origin?"

"That is beautiful, Doctor," he beamed, "please write it down, it sounds very cultured!" I refused and told him he must learn it by heart, and he marched happily away repeating: "Afebrile coryza..." Then he turned back. "What was that last piece? That I really like!"

I told him and realised that I had learnt a lesson. One who does not possess a perfect grasp of a language, may feel that he is being insulted and, as racial relationships are somewhat delicate, one must tread as carefully as a cat lest it jumps violently out of a smouldering bag.

"Well," he burst out, "This morning I went to a casualty department and the doctor tells

TEXAS, NON-STOP
747 DAILY FROM LONDON.

ARRIVES 3:05 P.M.

BIG COUNTRY

March 1st is the day of the inaugural flight of the very first Non-stop jet service from London to Dallas-Fort Worth, Texas. The Braniff International flight (painted a distinctive bright orange) will be the only daily 747 Non-stop to the western USA, providing the fastest routing for passengers and cargo from air to many cities in the Southwest, West, South and Mid-America—and to sea.

From Arizona's Grand Canyon to New Orleans, from Colorado's majestic mountains to the sprawling ranches and Space centres of Texas, from the great fields of Oklahoma to the rolling deserts of Nevada and New Mexico. To 3,000 miles of California beaches. To the tropical splendours of Hawaii. To the ancient ruins of Mexico and the glamour of Acapulco. To dozens of dynamic cities. It's Big Country. And from March 1st, Braniff is the big way of getting there.

NEW DALLAS-FORT WORTH
EWAY

Braniff's 3:05 pm. Non-stop arrival in Dallas-Fort Worth and its 7:00 pm. return departure for London are both scheduled to meet connecting flights throughout Big Country. At Braniff's own Arrival and Departure terminal in Dallas-Fort Worth, US Immigration Customs formalities are rapidly dealt with when you arrive.

What's more, whether you're in the United Kingdom or the States, we'll provide immediate confirmation for reservations on the daily transatlantic flight and connecting flights on Braniff and other US airlines. And a choice of seats in new when making reservations or return flight confirmations. (There's a cargo package service on an equally organized footing. Call for details.)

DAILY NON-STOP AND CONNECTING SCHEDULES

Arrive	3:05 pm.	Arrive	5:10 pm.
London 11:45 am.	Dallas-Fort Worth	Tulsa	
(wick)	Houston	Denver	5:30 pm.
	San Antonio	Kansas City	6:40 pm.
	Oklahoma City	Mexico City	7:50 pm.

From Dallas-Fort Worth 7:00 pm. Arrive London (Gatwick) 9:30 am.

INSIDE OUR BIG ORANGE 747

The Economy Class traveller could well be surprised at Braniff's special touches: wingback chairs for privacy in flight, generous enclosed overhead storage room, wide-open spaces for stretching the legs, a succulent choice of entrees. As for First Class, the comfort is in the five star bracket: the cabin contains just 24 chairs with (if you get to feel the need for society) a civilised international bar upstairs. To precede your luncheon you're served complimentary cocktails to accompany it, you're offered a choice of wines. Before, during and after, there are films and 8 channel stereo—at £1.50 per headset in Economy.

BRANIFF'S LOW FARES (Subject to Government Approval)

The special Braniff air fares, when combined with the lowest fare on the best connecting flights on Braniff or other airlines, make the Dallas-Fort Worth Gateway very economical for travel from Britain to Big Country. There will be no lower fares than Braniff's Advance Purchase Excursion fares and Group 100 fares.

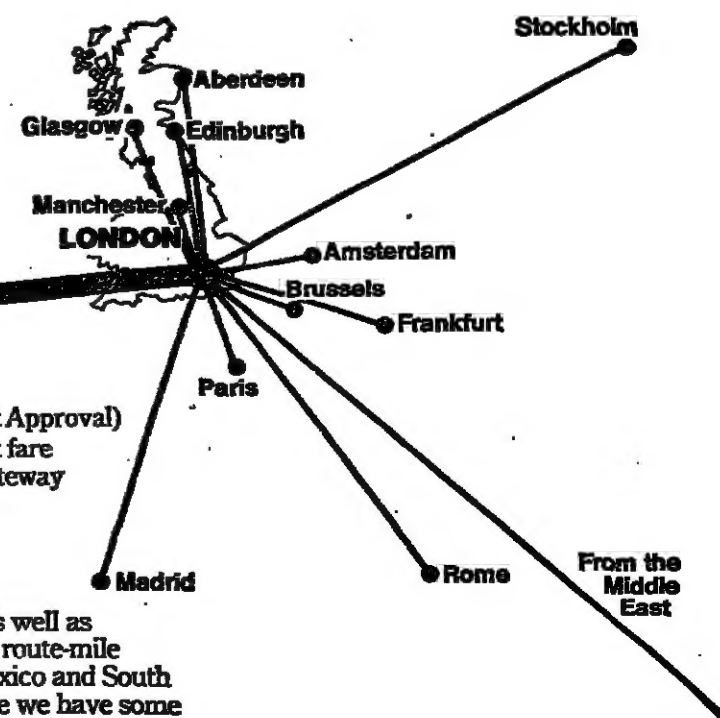
BRANIFF'S BACKGROUND

The London to Dallas-Fort Worth connection is simply Braniff's newest service. As well as being one of the oldest airlines in the States (founded 1928), Braniff has one of the largest route-mile systems, with over 90 jets covering some 48,000 kilometers of routes within the USA, Mexico and South America (where we're the leading US flag carrier). At the Dallas-Fort Worth Airport alone we have some 300 flights in transit every day all over the USA.

RESERVATIONS

Braniff is taking reservations now, for flights beginning March 1st. Call your travel agent or connecting airline for further information on Braniff flights, fares or holiday tours. Or telephone Braniff in London for a brighter, faster and more economical way of reaching the Big Country.

TELEPHONE: 01-491 4631 outside London dial 100 and ask the operator for freefone 2276 for reservations and details of connecting flights.



BRANIFF INTERNATIONAL

Mainland U.S.A., Alaska, Hawaii, Mexico, South America and Europe

FINANCIAL TIMES

BRACKEN HOUSE, CANNON STREET, LONDON EC4A 4BY

Telegrams: Finantimo, London PS4. Telex: 886341/2, 883697

Telephone: 01-248 8000

Monday February 20 1978

A chance to kill the Bill

THERE CAN be little doubt that if the House of Commons were allowed a free vote on the Third Reading of the Scotland Bill this week, the Bill would be roundly defeated. It has been clear for many months that the House as a whole either does not like the Bill, or has no interest in it. In fact MPs tend to divide into three groups on this issue. The large majority simply show their dislike or lack of interest by declining to turn up for debates, except when it comes to crucial votes on which they tend to follow the party line. There is a minority which is passionately against the Bill and which has shown, by rigorous attendance, that it is possible to amend it almost at will. And there is another minority, mainly consisting of the Scottish Nationalists, which is in favour of the Bill, but only as a stepping-stone on the road to independence.

Bitter

It is also clear — even more so now than it was at the start — that the Bill has major defects. There are certain key questions about it which have not been answered, and which are perhaps incapable of being answered. For example, is it conceivable that a Scottish Assembly would rest content without the power to raise revenue? Yet no satisfactory way of allowing independent revenue-raising has been found. No way has been found either of reconciling the proposed new level of Government with the existing regional and district authorities: it is arguable that Scotland is already over-governed and cannot possibly be helped by the addition of one more tier.

Not least, there is the so-called "West Lothian question": what are to be the powers of Scottish MPs at Westminster in relation to English affairs when the powers of English MPs in relation to Scottish affairs have been reduced? Again, no answer has been produced, even though it is not difficult to imagine the outcry that would arise if, after devo-

lution, a Government that relied for its majority on Scottish Members attempted to impose its way on purely English matters.

For those reasons alone, the Scotland Bill is a bad Bill and ought to be defeated. What is more, the majority of MPs know that it is a bad Bill, and almost certainly would defeat it if they voted according to its merits. And yet other considerations persist. These can be divided into the respectable and the disreputable.

The respectable case for allowing the Bill to go ahead is that there is a perceived demand in Scotland for something that falls short of independence, but goes beyond regionalism. The Assembly might be the answer. At the very least, goes the argument, the Scottish people ought to be given the choice and, given the 40 per cent. clause, they can have the Assembly only if they vote for it in great numbers, which is a way of hoping that they will not.

The trouble with that course, however, is that it stores up trouble for the future. The 40 per cent. clause will make the referendum campaign even more bitter, as the SNP strives to bring out the vote and at the same time alleges that the rules have been rigged. What will happen if the majority falls just short? And even if the majority is adequate, the objections to the deficiencies of the legislation would remain.

Confidence

The disreputable case for supporting the Bill is that the Government believes that it must do something to buy off Nationalist support in order to maintain its position in Scotland. Even if that reading were correct, it would be only at the price of more trouble ahead. Mr. Callaghan is rightly not making the vote an issue of confidence: he can afford to lose without being driven immediately to the country. Safe in that knowledge, Labour MPs who are aware that the Bill is dangerous can afford to vote against.

China buys Japanese

THE MOST immediately striking aspect of the new \$20bn. two-way trade agreement between China and Japan is that the Chinese leadership now has the confidence and authority to make long-term commitments which run against the grain of much recent policy on the export of natural resources and the purchase of foreign technology. For eight years is a long time in the political life of a nation with as turbulent a recent past as China.

The agreement also reflects Japan's confidence that the new Chinese leadership has the power to carry it through. As a result of the deal the Japanese will be looking to China as a continuing supplier of oil and will now have to invest in expensive refinery equipment to remove its high wax content. The Chinese have not agreed such a long-term trade package since the planned equipment purchases from Russia in the 1950s. Ironically, it is the Russians who have most reason to be worried by the new deal with Japan. For the agreement promises a new income increase in China's industrial strength, and could pave the way for a Japan-China treaty in which the Chinese are anxious to insert an anti-Russian clause that would stipulate that the two sides would oppose the attempts of another power (Russia) to seek hegemony in the region.

Unclear

From the conflicting accounts of the agreement it is still unclear whether it marks an addition to existing trade or whether China's current sales of oil and Japan's of steel have been included. But the integrated steel mill that China will obtain at Shanghai, the modernisation of two existing steel plants, the fertiliser and petrochemical plants all present significant additions to China's industrial capacity and technology in areas where at the moment there are considerable shortages. The further attraction to China is that it would have had difficulty in finding \$10bn. of foreign exchange to finance its side of the package outside the framework of a barter agreement with Japan.

The major constraint on any expansion of China's trade remains its lack of adequate foreign exchange. Exports of manufactured products are limited by the depressed state of world markets and the barriers of protectionism as well as by the growth of domestic consumer spending that will come with rising incomes. There is also no great demand overseas for China's oil or non-cooking coal — the most readily exportable of its natural resources — because of either its quality or transport difficulties. Thus in the Pacific region, at least, Japan, anxious to diversify its energy supplies and more to a shuttle service distance away, is the only obvious partner.

Prices

The agreement says that the barter trade will take place at prevailing international prices. The chances are that the Japanese, who have already sold steel to China at about 30 per cent. below international prices, are selling more cut-price steel and equipment. The incentive to do so is the magnitude of new orders for their depressed plant and steel industry — orders that will hopefully relieve pressure on Europe. Also they will be establishing their presence in a great trading centre that could become immensely valuable if China does fulfil its ambition of becoming a major industrial power.

There is little the Russians can do to prevent the drawing together of these two major Far Eastern countries. They have already told the Japanese of their hostile attitude to any friendship treaty that did include an "anti-hegemony" clause. The Japanese response in public has been to point out what they regard as Russian intransigence in the territorial disputes over the northern islands, which is holding up a peace treaty between Tokyo and Moscow. But the Japanese have no wish to incur the long-term anger of the Russians, who are also potential major suppliers of energy. In the coming months there is likely to be a lot of delicate negotiation by Japan either to tone down the "anti-hegemony" clause or to make a parallel peace treaty with the Russians.

The Post Office's dilemma over 'System X'

BY MAX WILKINSON

THE Post Office's latest attempt to persuade more people to use the telephone highlights the way in which its move into the computer age threatens to produce a conflict of interest between its subscribers and its suppliers.

On the one hand, the companies which supply exchange equipment and employ 65,000 people desperately need the Post Office to move quickly into a new computer-based switching system. The speed of the Post Office's change will largely determine whether they have a suitable product to catch the world markets in the 1980s, and whether they can keep their labour force at reasonable levels. Because of the huge costs involved, Post Office sponsorship is the key to their development programmes. On the other hand, the Post Office has to consider the interests of subscribers in keeping costs, and therefore tariffs, as low as possible.

The multi-billion-pound investment needed to replace the present Victorian technology with computerised equipment is certain to push up telephone charges if it proceeds too fast. For the Post Office "too fast" means faster than the rate which can be justified by the expansion of the system and a normal replacement programme for old exchanges.

But the manufacturers, who are already at least five years behind their foreign competitors, need the fastest possible development followed by substantial home orders to provide a credible base for exports.

Unfortunately, there is no magic formula which will match the rate of investment determined by the Post Office's traditional criteria and the speed of development which the manufacturers must achieve if they are to obtain any place at all in the world market. Indeed the rate of expansion of telephone traffic has slowed down to about 4 per cent. a year, only about half the rate of the late 1960s. And much of the old electro-mechanical Strowger equipment in the system will remain serviceable for many years to come, even though it has now been made obsolete by computer technology. These Strowger switches still make 88 per cent. of telephone connections in the U.K.

The Post Office is therefore faced with a major dilemma. How is it to justify investment demanded by the worldwide revolution in switching technology if the scale of investment is not strictly "needed" by subscribers? It is a dilemma which the Government has so far given no signs of understanding. Indeed, its decision last year that the Post Office should hand back £100m. "excess profits" as

a £7 rebate to each subscriber demonstrated a narrow short-term view of the industry.

Ironically £100m. is the sum allocated for the development of the new "System X" on which future export hopes must be pinned. "System X" is the code name for the fully digital computerised range of exchanges expected to be introduced into service in the 1980s.

The most obvious way the Post Office can hope to march its investment programme with the needs of manufacturers is to try to stimulate demand for the telephone service. If demand for telephones is expanding rapidly the System X programme will be justified and even accelerated by the Post Office's own need for new capacity.

These considerations undoubtedly lie behind the statement of Sir William Barlow, the new Post Office chairman, that he wants to see faster growth in both the domestic and business telecommunications sectors.

At the same time the Post Office has found itself, like it or not, at the centre of discussions about how to tailor its new digital computer controlled exchanges to the needs of foreign customers.

There are signs now that the old Civil Service approach is gradually giving way to the need to become part of what might be called "U.K. Telecoms Incorporated", an amalgam of interests between the public service and the private manufacturing sector.

Since the 1950s, the Post Office has made a series of disastrous decisions which left the General Electric Company, Plessey and the U.S.-owned Standard Telephones and Cables at least five years behind their overseas competitors.

Ruse contracts for Saudi Arabia, Australia, Korea and elsewhere have been contested in the international arena, while British companies watched helplessly from the sidelines, or at best tried unsuccessfully to enter on the coast tails of a large U.S. supplier.

All these contracts have specified the new type of "stored program control" (SPC) switching. This is a radical advance on the Strowger electro-mechanical switches which date from the nineteenth century. Even the most advanced British electronic exchange, the TXE4 does not have computer control.

Following the introduction of stored program control by Bell America in May 1965, several European systems have been developed. Ericsson of Sweden produced the successful PRX and ITT produced Metaco. In addition Siemens of Germany is developing the EWS 1 and Fujitsu and Nippon Elec-

tric in Japan have the DEX 2 and 10. The Post Office's answer is System X, which combines computer control with a new type of digital switching.

However, the Post Office has been engaged in what seemed an interminable round of discussions and squabbling with its suppliers about the basic conception of System X. These talks started in 1972, yet it was only last summer that some development contracts were officially awarded, and it will not be until at least the early 1980s that the new exchanges are in operation. The development contract for large urban exchanges has still not been announced. Manufacturers have been worried not only by the slowness in awarding the development contract, but by the Post Office's reluctance to give any firm commitment about the size of orders it will place for the new equipment. However, it does now appear that a sense of urgency has crept into the programme. Next month for the first time, the Post Office is expected to release some details of how the hitherto secret system will work. Sir William has also promised that firm orders for production exchanges will be placed shortly, probably by the end of the year.

A computer controlled network is immensely complicated and decisions on the basic framework of "architecture" are of crucial importance to its eventual success. On the other hand Ericsson of Sweden, which won the Australian and half the Saudi Arabian contracts, took only five years to develop its own AXE system. It now looks as if System X could take twice as long.

The chance-over to a computer controlled system is not required merely to keep up with international fashion. The invention of stored program control was one of the most important developments in the history of telecommunications. It offers the prospect of a cheaper, more efficient and much more flexible telephone service. The Post Office certainly need it at some stage, partly to cope with expansion, for one thing it takes up far less space — and partly to replace the outdated Strowger gear.

The difficulties of designing a computer controlled network are enormous, and there have been a number of disasters in the early stages of most systems. Large numbers of different programs in large numbers of exchanges are all using the network at once to control thousands of simultaneous conversations. Unless the greatest care is taken the bleeps generated by the different programs all start getting mixed up and different

THE DIFFERENT TYPES OF SWITCHING

● **STROWGER**, or "step by step" switches invented in the last century and still manufactured, are reasonably reliable and efficient, but slow in operation and expensive to maintain. The digits dialled on the telephone receiver send pulses down the wire which activate electro-mechanical switches one after another until a complete connection is made. A delay between dialling and connection is inevitable while the switches are setting up the call. Contacts must be cleaned frequently and the mechanism kept free from dirt. Strowger exchanges are bulky and require intricate wiring networks between racks of switches.

● **CROSSBAR** was the next development of switching technology widely introduced in many countries during the 1950s and 1960s, but not any great extent in the U.K. where the Post Office made a disastrous attempt to leapfrog into the electronic age. It consists of a grid of horizontal and a grid of vertical bars which both have switch contacts at the crosspoints. Contact is made at only one crosspoint when a vertical and a horizontal bar is given a half turn. Crossbar exchanges are more compact than Strowger and allow more rapid control of switching sequences.

● **REED RELAY** — The most recent development in conventional switching has been to replace the mechanical bars and switches with miniature metals springs or "reeds" enclosed in glass bubbles. An electro-magnet wound round the bubble pulls the reeds together to

connect speech paths. Reed relay exchanges are still smaller than Crossbar, and, because the switches are enclosed, require less maintenance.

● **STORED PROGRAM CONTROL (SPC)** is the use of computers to control exchanges. In traditional systems, the dialled pulses are used directly to open and close switches to connect calls. In the most modern of these systems, sophisticated electronics interpret these pulses and re-transmit them to the various exchanges through which the call will pass. SPC, however, replaces these control mechanisms with a computer. The number dialled by a caller goes straight to the computer, which calculates the best route for the calls and sends out appropriate instructions to the switches.

This system is faster and more flexible, because the computer can instantly calculate the best route for a call when the lines are busy. The computer can provide many extra facilities and allows changes — like disconnection of a subscriber — to be made by a simple instruction from a keyboard rather than the physical alteration of wires in the exchange.

From the subscribers' point of view, SPC is capable of providing a range of new services, in fact many of the services at present provided by a personal secretary. For example the telephone can be instructed by punching in the appropriate code: "Do not allow any incoming calls until 4 o'clock, except if Mr. rings." It will allow calls to be transferred automatically to another number, and

if a number is engaged, can automatically ring back as soon as it is free. Because such services are controlled by computer programs, they can be altered or expanded relatively easily from a central office, and different subscribers may choose to have different facilities.

● **DIGITAL SWITCHING** represents the complete integration with computer technology. SPC is only a computerised way of controlling switches. Speech is conveyed between telephones by ordinary electrical currents (analogue signals) which exactly mirror the vibrations of the voice. In a fully digital exchange, however, these analogue currents are converted into a series of "digits" or bleeps. The bleeps are the same as the signals used by computers for their internal operation. Conversations coded in a digital form can therefore be routed to different destinations by an internal switching system within a computer. These switches are millions of times faster and millions of times smaller than the older electro-mechanical switches. Moreover they are connected on tiny micro-circuits with hardly any wires between them.

● **PRESIDENT SYSTEMS** — All existing SPC systems in Europe including Ericsson's AXE, Philips' PRX and ITT's Metaco combine computer control with analogue switching, mainly using reed relays. The British Post Office's System X will combine SPC with digital switching, although analogue exchanges may well be incorporated into the system in the early stages.

On the other hand the record on System X so far is not encouraging. The Carter Committee reported: "The situation as we have found it causes us the gravest misgiving. The three manufacturers are not a natural team. In particular, the British owned firms (GEC and Plessey) are suspicious of co-operation with the American owned STC."

After an initial failure with what is now described as "spaghetti programming", Ericsson of Sweden pioneered a rigid modularity which means that every part of the system is completely self contained, and isolated. This produced the AXE exchanges which are now acknowledged to be reliable and efficient, even though the approach led to a great deal of duplication.

So far most of the computer controlled or Stored Program Control systems — including AXE, Philips' PRX and ITT's Metaco — combine computer control with the more traditional reed relay mechanism for actually connecting calls. Telephone conversations are still carried by ordinary electric currents which follow the pattern of sound waves.

System X aims to leapfrog these developments to a new type of digital switching which can be carried out within the computer on microscopic electronic switches. Such switches can operate extremely fast and require very little maintenance. Dr. Kenneth Corfield, managing director of Standard Telephones and Cables, estimates a fully digital exchange in ten years' time will occupy about a thousandth of the volume of traditional exchanges and require

about a tenth of the direct labour in manufacture.

Apart from the gains in speed, size and eventually in cost, there are enormous advantages in flexibility. The computer can be constantly searching for an unengaged line. Different parts of a conversation may go by entirely different routes without the subscriber noticing any imperfection.

Initially only the larger exchanges will be fully digital, with conversion apparatus at either end. Gradually System X will be extended as an "overlay" to the existing exchanges, until eventually the conversion to digits will probably take place in the subscriber's own telephone.

At present the only company to have a substantial number of fully digital exchanges in service is the giant AT and T in the U.S.

One of the major uncertainties about System X is whether the formidable difficulties of stored program control and of digital switching can be overcome by the research teams in one simultaneous jump.

On this point, Plessey, for example, is moderately optimistic. It points to the successful development of the British military communications system called Platynian, which is fully digital and computer controlled.

These delays are occurring a time of unprecedented advance in component technology. Computers the size of a film cabinet in 1972 will be either onto silicon smaller than postage stamp in a few years time. Prices of processors and memories are continuing to tumble, while their reliability increases. Consequently designs which have too long a gestation period risk being obsolete before they are tested. To be in the race at all, manufacturers must be continually jostling among the leaders.

But in spite of its advanced concept, System X is in development terms half a lap behind.

MEN AND MATTERS

Keep smiling in Whitehall

Naturally enough, inflation has left its mark on the cost of the Prime Minister's own staff, as upon wages everywhere. In a written answer in the Commons last week, Mr. Callaghan disclosed that in 1974 the total bill for such staff was £234,000, whereas in 1977 it was £435,000. The numbers were much the same — 71 last year compared with 68 three years earlier, but only one part-timer instead of three.

So the average pay of prime ministerial aides has gone up from £3,441 a year to £6,126. The latest figure may seem quite a lavish average to the man in the street, but then one cannot blame Jim for wanting an increase of 78 per cent. The average national wage in April 1974 was £4,170 a week, in April 1977 it was £70,20. That was an increase of 68 per cent. Nice to know that Downing Street is setting such a good example to us all.

Bosses' boss in France

If the French left wins next month's elections, the view from the top floor of number 31, avenue Pierre I de Serbie, will be distinctly murky. It is perhaps because of his talent for feeling his way forward in gloomy surroundings that Francois Ceyrac has been unanimously reappointed head of the national employers' federation, the Patronat, for an unprecedented third term. Since 1973 he has managed to steer between the aggressive small business lobby and the big conglomerates heavily represented on the Patronat's governing body.

Ceyrac has also maintained a



"Now Jim is threatening a 'Buy British' (Scottish-Exeption) Campaign."

dialogue with government and unions about industrial and social reform. Now 65, and with a deeply lined face, he was born in the Corrèze, a poor region of south-central France. Since the murder of his German opposite number, Hans-Martin Schleyer, he has had a bodyguard on presidential orders.

Predictably, Ceyrac has been bitterly condemning the economic programmes of the Left-wing parties. But he is also warning the present government that it must stimulate faster industrial growth to combat unemployment among the young. Whatever happens at the polls, the man the French papers call the "boss of the bosses" is certain to find his third term the toughest of them all.

Don't call us — we'll call you

The Post Office has shaped up in the looming menace of "sequential dialling", in which I draw attention early last December. This is the U.S. innovation whereby advertisers can call every number on an exchange

to deliver a sales message. The Post Office told me that they had never heard of it and while being sceptical would not like to offer a premature judgment. John Carlwright, a Labour MP who specialises in consumer affairs, has now won an assurance that the "telephone terror" will not be allowed into Britain.

Just in time. Up to 20m. calls a day are being made in the U.S., delivering a variety of four-minute snide according to which advertiser has bought time on private lines. Until the message ends you are unable to dial out — one subscriber has stirred public anger by telling how she could not call a doctor for several minutes when her mother had a heart attack. The State of Illinois is now leading a nationwide drive to have computer-based sequential dialling made illegal.

Light on lead at Lloyds

Heavenly harmony has been restored between the London Metal Exchange and Lloyds Bank. Followers of this column will recall how a lead price pinner in the bank's competition for sixth-formers has inundated the LME with letters. Now one of the ring-dealing members on the exchange — Associated Lead Manufacturers — is stepping into the breach. It says it will give the answer needed by students — as long as their requests are accompanied by stamped addressed envelopes.

This is a considerable relief both to the LME and the Financial Times commodities department: there seems to have been an amazing increase lately in youthful FT readers studying lead for a special thesis or a "forthcoming examination" — all seem coy about admitting that they want to win one of those Californian holidays being offered by Lloyds. To avoid making things too easy for the sixth-

formers, I shall leave them to find the address of Associated Lead.

Stockholm stick-up

Residents in a south Stockholm suburb have received an official letter saying that their local post office was being closed as the staff went in fear of their lives due to a continual run of armed hold-ups — mine since 1969. In future, residents are to use another completely new post office about a mile away, which has been equipped with the latest aids to deter robbers. Last week the new office had its first taste of reality when two men, one armed with a pistol and the other brandishing an axe, got away with Kr.20,000 (about £2,400).

About 30 sub-post offices in the Stockholm area are being shut as staff are scared to work alone or in small numbers. In the last three years Sweden has spent about Kr.60m. to deter postal bandits, but it appears that this sort of crime does pay. Already the number of such hold-ups in 1978 is well into double figures.

Hope at last

Dr. Alan Bond, director of the artificial intelligence laboratory at Queen Mary College, London University, is going to unveil a new kind of robot on Thursday. He says: "It will be responsive to its environment and will learn from its mistakes."

I trust Bond will be able to get some ready to stand in the next general election. Perhaps he could also offer one to Sir Charles Villiers at British Steel.

Observer

How to increase the value of your legacy?

You must naturally be concerned to ensure that your bequest achieves the maximum benefit, and that it is not eroded by inflation.

Help the Aged shares your concern and does a great deal to meet it. First, the charity mobilises hundreds of devoted volunteers at home and abroad — including retired people with special skills. They enable us to achieve much with every £1 entrusted to us.

Then we place great importance on taking the initiative and helping self-help work — to build Day Centres where old people find friendship, Work Centres for those intent on keeping active, Feeding Centres for the hungry overseas, and Day Treatment Hospitals here in Britain.

Among the well-known people who endorse the value of a legacy to Help the Aged are Lord Shawcross, Lord Gardiner (the charity's president), Dame Vera Lynn and General Sir Brian Horrocks.

Write or phone for interesting and helpful booklets on making wills, and on reducing the impact of Capital Transfer Tax (Estate Duty). Free on request from The Hon. Treasurer, The Rt. Hon. Lord Maybray-King, Help the Aged, Room FT2L, 32 Dover Street, London W1A 7JZ. Telephone: (01) 499 0972.

سكان الصين

FINANCIAL TIMES SURVEY

Monday February 20 1978

Freight and Transport Systems

In all the main sectors world transport is having to cope with a welter of change — a problem not eased by the recession. An increasing degree of regulation seems to be a distinct probability throughout.

iding
it a
oubled
ne

n Hargreaves

rt Correspondent

N THAT trade problem is a symptom of a 1 economy, it is no that the last year has he symptoms spread. transport is no excep- dent oil tanker owners a chronically over- d market to the argu- of British hauliers in- of a tougher licensing 1978 looks like being ed by a succession of NE. fact that some of these sts assume the status -blooded international confrontation whereas are merely tiffs between tions of one domestic represents a difference. rather than of type. s to the first variety are o involve tariffs and and the latter Govern- gulations or preferential ent. arguable, however, that transport industries regulation of competi- at least to a degree un- e, regardless of eco-

onomic climate. Within air transport, such regulation is accepted on the grounds of safety and the need to give carriers some assurance that very large capital investment will not be jeopardised by excess of competition. This is not to say that the forces of regulation may not occasionally be subject to criticism.

In an area such as road and rail transport, views differ widely. EEC transport policy is founded on a dirigiste approach to such matters and in the U.S. trucking is regulated to a degree unthinkable in this country. The U.K.'s liberal system is, however, under challenge from the hauliers, who are arguing to the Foster Committee on operators' licensing that they too cannot cope with such a free tide of competition and from the Community, whose regulations about drivers' hours the British haulage industry will have to learn to live with during the next three years. At least for the moment, though, the EEC is not pressing the question of bracket or reference tariffs in road haulage, although curiously the demand for minimum tariffs is one which the Foster Committee will hear from some U.K. hauliers.

In shipping, the traditional regulatory medium for the liner trades, the conference, is under attack again in the U.S., where a Grand Jury investigation is expected to begin later this year — a factor which would seemingly contradict the argument about the growth of industrial goods has serious regulatory spirit. But at the same time as the U.S. authorities have supported the anti-trust zeal of the Grand Jury, they have toyed, seriously but so far unsuccessfully, with the

notion of cargo preference for oil trades. Cargo preference, dormant rather than dead in the minds of the oil-producing States, could yet present a fundamental challenge to the whole concept of the freedom of the seas.

Elsewhere in the shipping industry, European governments are talking of regulatory ways to halt the expansion of the Soviet incursion into liner trades. Then, although it does not come under the strict heading of regulations, the growing Government involvement in the financial support of shipping, as in Norway, or in the connected area of shipbuilding, in almost every nation possessing a shipyard, both mean a louder government voice in the way things will be run. The fact that developing nations have become particularly fond of creating State shipping lines means that the private ship-owning sector is bound to go on declining.

Burden

These developments mean a great burden of responsibility on national governments and on their supra-national equivalents to get their relationships with the freight transport industries right. The penalties of not doing so are obvious enough. Britain's transport users alone spent over £10bn. on goods transport last year and any unwarranted interference with the efficient movement of industrial goods has serious consequences for the consumer. Sir David Orr, the Unilever chairman, said recently that a single day's disruption in Unilever's world-wide trans- port and distribution operation



The French port of Dunkirk-West, with car, train and container terminals linked to U.K. ports like Dover, Harwich and Felixstowe.

would cost the company £16m. in extra stock requirements.

As the pace of freight throughput, from merry-go-round coal wagons to self-packaged supermarket goods, has increased, so have the penalties for disruption. The consequences of international regulations for oil tankers, recently proposed by the U.S. to IMCO would have been a 2 per cent increase in the price of oil.

Although principled debate on the subject of freedom of competition is at the heart of almost every EEC proposal on transport matters, the parallel requirement for fairness creates endless problems. In theory, the system of a quota of road haulage permits, administered almost entirely on a national rather than a community basis, is a nonsense, but it is a nonsense with no end in sight because the penalties of giving the heavy lorry freedom of the European motorways is more than a number of nations dare

contemplate. West Germany, with its £2.4bn. a year support for its railway and, like others, its influential anti-juggernaut anti-new roads environmental lobby, is a case in point. For the foreseeable future, the argument is going to be about not whether there should be a quota system, but simply how it can be operated most fairly.

The other big European road haulage issue—lorry drivers' hours and maximum vehicle weights—presents bigger challenges still. The first has been more or less resolved, with Britain accepting a three-year phase-in of the eight-hour day from last month, but the associated issue of compulsory tachographs continues to divide Britain and Ireland from the rest of the Community. At least in the opinion of many in the British industry, this is a case of the Community enforcing uniformity on a purely domestic matter which has no bearing on fairness of competition for intra-Community movements.

A solution on vehicle weights seems some distance away, with permitted gross weights varying now from 32 tons to 44 tons. Meanwhile the truck producers are becoming increasingly transnational and the freight carriers more committed to inter-modal unit road traffic. Both would benefit considerably from harmonisation of weights.

Railways

When it comes to railways, the Community has made virtually no progress, which is a pity if only for the lack of consideration it implies for the degree to which railway financial problems dominate the minds of several member governments. Britain's Transport White Paper last June was the first for some time not to have been sparked off by a cash crisis at British Rail. More positively, the quagmire of road haulage permits and the tighter limitations on the driving day suggest a wider role for rail in

the immediate future and in the longer term, energy pressures may offer an even greater opportunity. The lack of constructive European debate on the subject is disturbing.

Of course it is possible to take all this cloak of regulation too seriously. Transport operators, freight forwarders and their customers are able to circumvent many requirements of even the most determined bureaucracies. An example of an official exercise which proved to be largely pointless was the "little Noddy" report on through transport to the EEC last year.

This document, although accurate enough in many of its observations about the trend towards through transport and the need for industry to grasp this trend, had almost nothing to say by way of conclusion. Its suggestion that carriers should make sure they offer clear, door to door delivery terms, partly in the interests of balance of payments gains, was interesting, but is not likely to be much needed by operators.

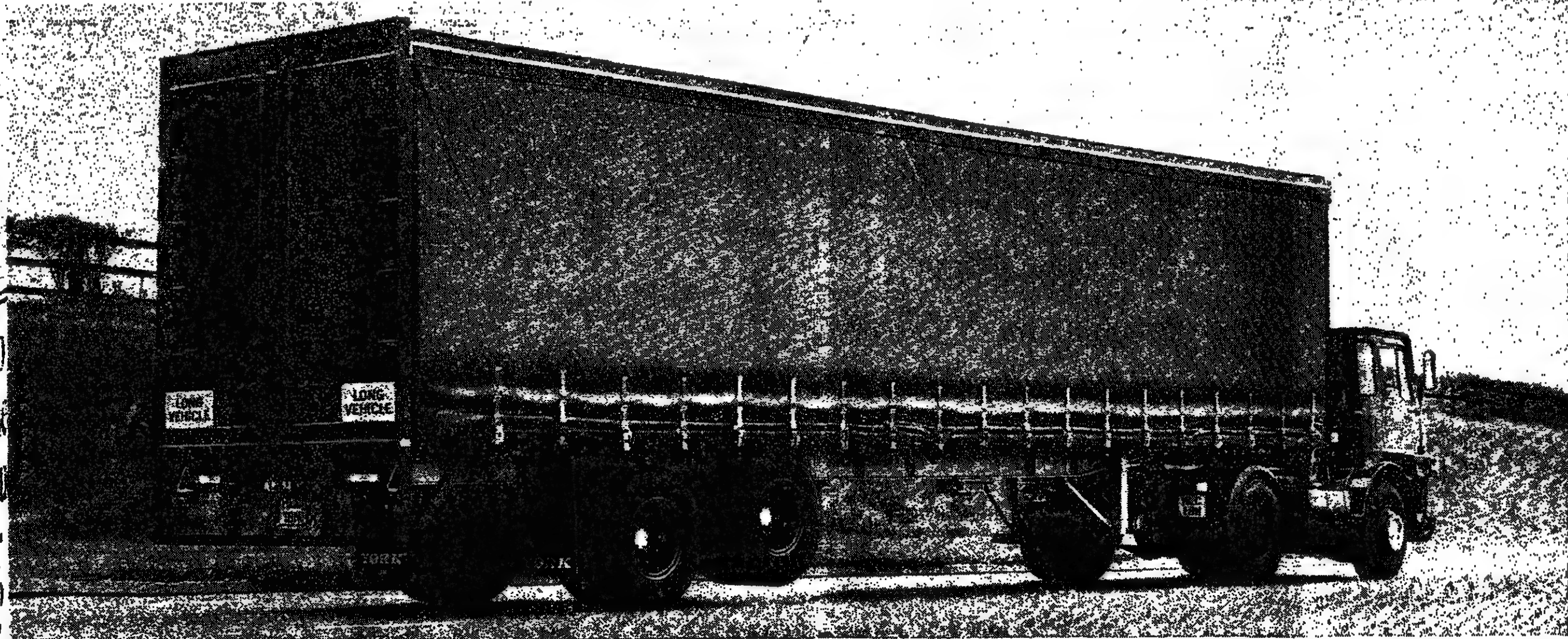
In shipping, the EEC is only just beginning to consider the idea of some sort of all-embracing marine philosophy, but it will probably not get through 1978 without divisions over the UNCTAD liner code coming to the fore. This is mainly an issue of straight self-interest between community members wanting more cross-trade and the larger cross-traders like Britain not wanting to sacrifice what they have, but it is one where the Community would do well to be able to present a united face to the developing world.

Shipowners themselves look most urgently to the Community in 1978 for some action to stem the flow of grants and cheap credit from member Govern-

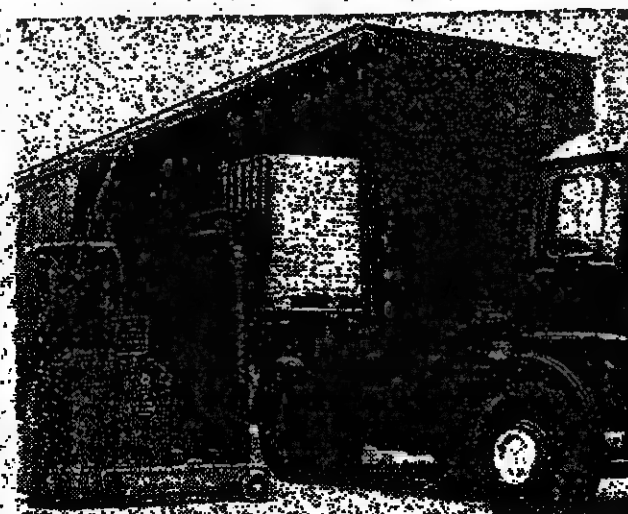
ments to their shipbuilders—a flow which in the view of the shipping industry is having a disastrous effect in delaying the re-balancing of supply and demand in shipping markets.

The U.K. Government's response to some of those developments, as summed up in last June's Transport White Paper, has been to declare a regime of no subsidisation for freight carriers, steps to ensure less environmentally hazardous lorries and so far as possible fair terms of competition between road and rail. In philosophy, the policy has much to recommend it—not least because its rejection of traditional Labour Party arguments opens up the prospect of avoiding wild swings of policy between administrations of different parties. When the Opposition's transport policy document is agitating strongly about a matter of such narrow concern as the information in British Rail's accounts, we can be sure there is not too much difference of basic policy.

The general prospects for the freight transport industries in 1978 remain unavoidably tied to the rate of economic growth and the increase in world trade. There are few grounds for optimism in most sectors, but at least now the pace of innovation in ports technology, new ship designs and road-based unit load systems has slackened, giving everyone an opportunity to take stock and adjust to the consequences of a decade of rapid change. Only as the pace of world trade quickens will it be possible to judge the extent to which the growth in the spirit of regulation and trade protection has become a permanent feature of the freight transport industries.



The easy loading of a platform with the protection of a van and the reliability of York.



Impeded side loading through the heavy duty 9oz PVC coated polyester curtains. (The four sturdy roof supports are only spaced along the centre line of the trailer.)



Rear-loading through optional container-type double doors. (Note: raised rear header for extra internal cube.)

The York Curtainsider is an integrally built side loading trailer. Not a body-built add on. The fully-tensioned curtains and one-piece roof give the loadability of a platform and the protection of a van. And it's all a one stop deal from York. One order, one delivery, one responsibility and one guarantee.



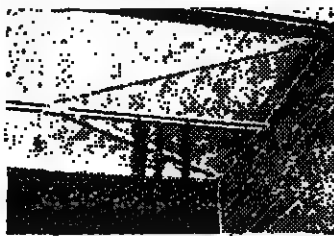
Quick release straps and ratchet operated horizontal tensioning eliminates billowing.



Deep rear door frame for extra rigidity and body strength.



Extended rear door posts welded to anti-under-run bumper for strength and safety.



V roof bracing at front and rear for extra strength.

York Curtainsider—it comes with Hobo too.

YORK

York Trailer Company Limited, Northallerton, North Yorkshire DL7 8UE. Telephone: Northallerton (0609) 3155. Telex: 58600.

FREIGHT AND TRANSPORT SYSTEMS II

Vogue for package deals

FREIGHT TRANSPORT has been one of the fastest growing activities in recent decades both in Britain and in the world generally. The rate of increase has slackened or disappeared altogether during the post-1973 world economic recession, but in the 1950s and 1960s, according to some estimates compiled by the Transport and Road Research Laboratory, the total world demand for freight transport—as measured by the somewhat unsatisfactory yardstick of ton-miles of work done—was probably growing by almost 8 per cent a year. This was faster than the increase in both world population and world income during the same period—and faster too than the growth in passenger transport as measured by the total volume of passenger-miles.

This rate of increase was not all that surprising. The 1950s and 1960s witnessed the longest sustained wave of economic expansion the world has so far seen, and the most notable feature of that expansion was the vast growth in trade between countries, and especially between the industrialised countries. Whereas internal freight movements tend to grow in volume in rough correspondence to the growth of a national economy—subject to the ebb and flow of manufacturing—the volume of international freight movement will be affected by the volume of international trade and the distance between trading partners.

As one might expect, this expansion has been accompanied by marked technological and operational changes in freight transport systems. The shipping industry has invested in large bulk carriers to move oil and an increasing range of dry cargoes. It has converted most of the world's major deep sea and short sea routes to container and other unitised cargo handling methods. The ports have invested heavily in new and more efficient berth and cargo handling capacity to match the changing techniques and volume of maritime freight movement. In the air, the development of air freight has created an entirely new competitive mode large enough to justify the design and operation

of large specialised jet air carriers.

On the railways, freight handling systems have been transformed by the adoption of container and other full-train load systems and by improvements in signalling, communications, and motive power. On the roads, unit costs have been reduced by heavy investment in new road systems and by the design of larger, more efficient trucks with bigger payloads. Pipelines—a relatively new and specialised freight carrier—have arrived on the scene. And in the organisation and control of freight movement, automatic data processing techniques have facilitated the development of more sophisticated, more economical and more responsive systems for regulating the flow of supplies to factories and out again to customers and shops.

Specialised

As a result of all these developments, freight transport services have become increasingly specialised and the different modes have increasingly become complementary. That does not mean competition has become less intense. For from it, both within and between modes. But the services on offer have become not so much transport services as distribution services using more often than not, more than one mode or type of service. In short, inter-modal operations are becoming increasingly predominant. Just as road carriers in this country are offering highly specialised services for, to take some examples, moving fashion clothing or refrigerated foods or complete distribution services including storage, warehousing, and stock control, so freight forwarders and other transport interests are providing inter-modal door-to-door services for exports.

P. & O. and Ocean Transport and Trading, Britain's two largest shipping groups, have for example diversified into a wide range of other transport activities, including international freight forwarding, road haulage, air freight, and land distribution services. Many U.K. road hauliers, both large and small, have moved into cross-Channel operations, acquiring a substantial share of that market.

Some have gone further afield, opening up overland routes to Eastern Europe or to the Middle East in response to the demand created by port congestion in that region. Both hauliers and other companies are participating in joint ventures in the Middle East so as to be able to provide onward distribution services. Several U.K. firms are also offering specialised road carrier services in different parts of Africa.

The railways, both here and on the Continent, have meanwhile been vastly improving their cross-Channel container and full-train load services. In journey times and cost these services have become much more competitive in recent years, for shipments of a size, loadability, distance and route suitable for rail hauls. In some sections of the market, too, the cost and delivery times offered by road-air-road services have also become highly competitive.

For British freight carriers and forwarders Western Europe provides the biggest single market. It is now the source or destination of just over half of Britain's total visible trade, as against barely a quarter two decades ago. It is one which, because of the application of roll-on, roll-off techniques to surmount the sea barrier and because of the relatively short distances involved, lent itself most readily to exploitation by road based freight systems. In the last ten years the total ro-ro tonnage crossing to the Continent has grown from barely half a million tonnes a year to more than 13m. tonnes.

This does not mean it has been an easy market to break into or to make a profit out of. Several haulage companies, including some of the biggest in the land, have burnt their fingers. And there has also been the perennial problem of acquiring licences to operate—both under the EEC Community quota and the system of bilateral inter-governmental permits. There has never been a year when the quota or the number of permits negotiated by the Government for U.K. carriers has been sufficient to match the demand—which does not make it surprising that there should be a fringe of black market operations using forged permits or none at all, especially on the Middle East run.

To meet the permit problem some carriers have gone into partnership arrangements with a Continental firm. Some have used "kangaroo" rail services—putting the loaded trailer on a train for part of the way. But, while this may be useful on the longer routes, including those to the Balkans or further, the height, roof design, and loadability of the trailer and the question of an accompanying driver need careful consideration.

Pressure from the European Community and from national governments such as the British and Dutch for a more liberal attitude to cross-frontier opera-

tions by road has been particularly strong competitive force in this market. The pressure of demand as intra-Community trade has grown has been gradually prising open more cross-frontier opportunities for road carriers just as earlier it led to improved procedures for cross-frontier rail freight movement. Progress may be slow, but it is exporters and importers that want efficient, speedy, and reliable door-to-door delivery services and they will use the forwarders and carriers that irrespective of mode, offer the most competitive service providing these requirements.

Colin Jones

Materials handling equipment

MANUFACTURERS TO-DAY aim to produce the most economic quantities and to transport products to distributors and customers in large and efficient loads. The general trend is for more loads to be unitised or palletised, which in turn gives more opportunity for efficient handling at both ends of the journey and on the way.

But there is still plenty of room for improvement. A Department of Industry survey of 30 engineering companies provided enough evidence for the Institute of Materials Handling (IMH) to suggest that U.K. industry was spending £1bn. more than it needs to on storage and materials handling.

Much of the needless expenditure could be cut by the introduction of better handling methods rather than the purchase of new mechanical handling equipment, according to the survey.

But that concentrated only on waste. If manufacturing industry is to improve its efficiency, there will have to be investment in reliable handling equipment. Investment in data

handling systems and investment in training.

The mechanical handling products are already available to do most of the jobs. "In specialised areas it will be justifiable to try out the new and grand concepts which appear from time to time from basic or applied research. But for the long time to come our goods will be mainly handled and carried by refinements of the equipment and principles which, in one form or another, are familiar to us now," said Mr. Geoffrey Butcher, a director of Modern Materials Management, in a paper presented to the IMH recently.

Compare

To develop his point further, you have only to compare the number of lorry-mounted cranes in the U.K. with those seen on vehicles in Continental Europe to understand just how far Britain has to go before getting the full benefits of this mechanical handling device.

The concept that a lorry should have its own small crane to allow a driver to load and unload without other human aid

has been around for many years yet has not made too much of an impact in Britain, possibly because of union resistance to changes in existing working methods and manning levels. At the moment the Swedish Hyab lorry-mounted crane has the major market share and it is distributed in the U.K. by the 800 Group.

In some handling areas the debate continues about which equipment is best for a particular purpose. For example, there are two schools of thought about how containers should be shunted about on the docks. Should it be by straddle carrier, which is mounted on four tall legs, move over the container and clamp it up to its belly, or by the big side-loading lifttrucks designed for container handling?

Britain is represented in both these product areas. Ferranti Engineering, a recently formed subsidiary of the Ferranti group, is making straddle carriers, while Lancer Bess has gained a worldwide reputation for its side-loaders. These machines helped the container revolution on its way at the docks.

In the warehouse the materials handling industry is waiting with some awe to see how the £7.5m. warehouse at Leeds developed for Elida Gibbs, Unilever's toiletries subsidiary works out. Probably the most highly automated plant of its kind in Britain, on the goods inward side there will be a fully-automated Teletrac train system to convey pallets, with transfer to driver-controlled loading trucks to put the goods into the correct pallet bay for order picking.

Capacity

On the ordering side there will be two huge Ordermatic SI order-picking machines by SI Handling Systems, each able to control up to 1,500 goods slides from as many product racks in the system.

At last year's Movement 77 materials handling equipment exhibition, SI Handling launched another idea—called Itematic—for automatic order selection of single items. This is ideal for any distribution centre handling small packs—toiletries, pharmaceuticals, films, tobacco products and so on. The claim is that it is an economical and practical way of having automatic order selection of items of both regular and irregular shapes in less than full case quantities.

Another product which caused some favourable comment in the materials handling industry and which was introduced at the show was the Hi-Racker developed by Barlow Handling for pallet picking full loads, and order picking individual items to and from the pallet. The Hi-Racker embodies the principle of elevating the cab of the vehicle, with the operator. He can store and retrieve complete loads up to 3,000 lb at lift heights of up to 40 feet in aisle widths of 37 inches, depending on pallet dimensions. The "walk through" cab allows the operator to stand close to the racking and pallet to select individual items.

A method of safely lifting a man into the air on the forks of a lift truck was one of the "top ten" items of equipment nominated by Materials Handling News last month. The magazine monitors readers' inquiries it receives about new products and one of those which claimed attention in 1977 was an attachment from E.V. Leonard which is secured to the forks and used as a maintenance platform. The manufacturer stresses it is not an order picker so that the truck should not be moved while the platform is raised. It also says the safe maximum working height is 18 feet.

Another idea which appealed to MHN readers was the Modular Distribution Systems Transfer Frame. These are lift frames with built-in hydraulics which can be used to provide mobile, height-adjustable load-lifting docks, work and elevating platforms and mobile gantry cranes for large and awkward loads, as well as for converting containers into a form of mobile warehousing and discharging bulk materials from containers.

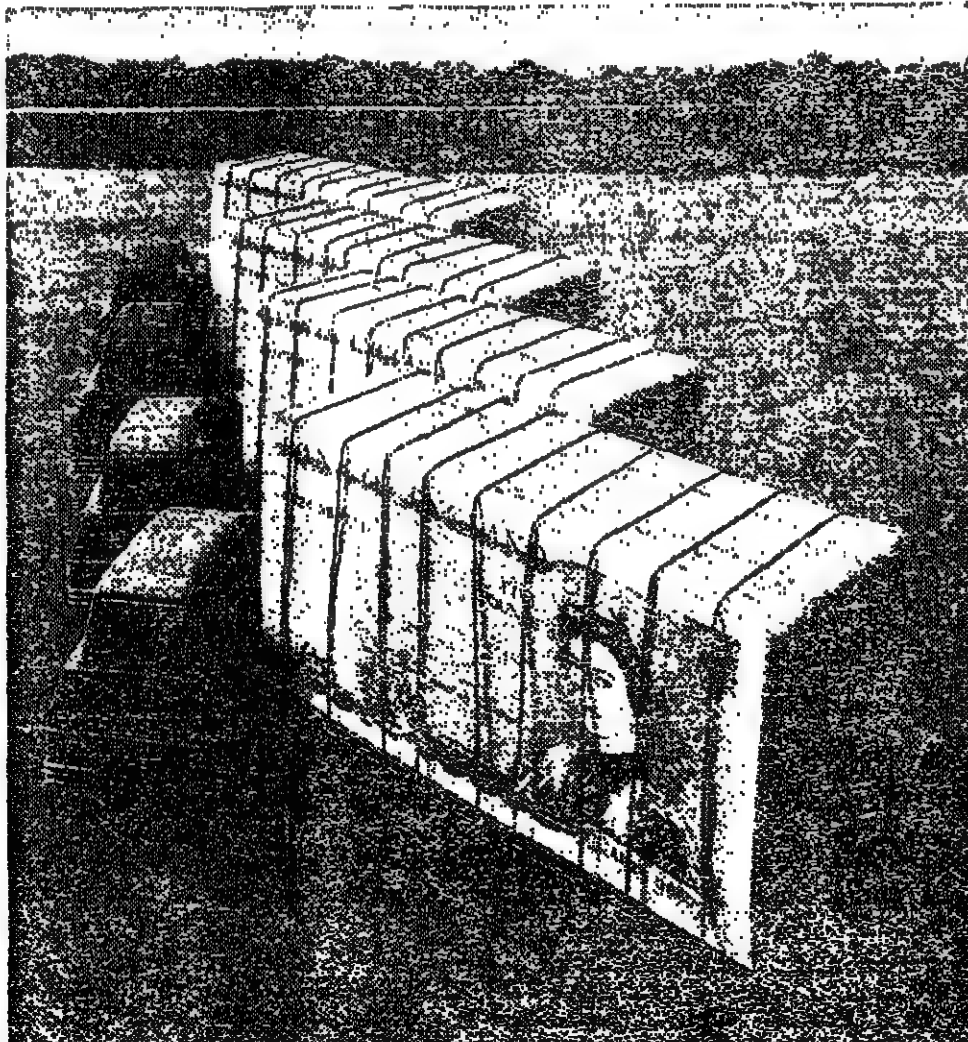
One of the few genuinely new machines launched at Movement 77 also made the MHN list. It is a universal narrow-aisle truck from Narrow Aisle (U.K.) which aims to combine the virtues of the reach truck and the narrow-aisle stacker. The truck can be used as a reach truck in the normal way, but when used for narrow-aisle stacking scores over the normal stacker by having a much reduced length—the necessary transfer gantry at 9 feet is only 60 per cent of that of most narrow-aisle stackers.

Capacity is 1,000 kg. and the lift height is 6m, which the makers reckon is enough for most British warehouses. The price is 10 per cent to 20 per cent more than a reach truck compared with a conventional narrow-aisle stacker which can be up to 80 per cent more. Said to say, customers tend to regard technological developments in the mechanical handling sector conservatively—they prefer to see equipment working in someone else's warehouse or plant before they order it for themselves. But obviously, as the MHN experience shows, it is still possible to succeed with something completely new.

Said to say, customers tend to regard technological developments in the mechanical handling sector conservatively—they prefer to see equipment working in someone else's warehouse or plant before they order it for themselves. But obviously, as the MHN experience shows, it is still possible to succeed with something completely new.

Kenneth Gooding

There are better ways to tie up your capital and still have the fleet you need.



These days Companies that can justify paying cash for a fleet of trucks are few and far between.

And with so many other demands on cash flow, can you really afford to exhaust your capital and bank overdraft facilities?

Consider Trucklease as an alternative funding option. Trucklease is a complete leasing package for fleet operators backed by the expertise and immense resources of Lombard North Central, a member of the National Westminster Bank Group. With known rental commitments, Trucklease will enable you to plan more accurately whilst conserving your capital for other needs.

So our message is simple; if you really know the ropes you don't have to tie up capital in your transport fleet. Call us at any one of our 110 branches (we are in your telephone book) or at the nearest Regional Office below.

Lombard North Central
Limited
Trucklease
Lombard House, 100, The Quadrant, London WC2N 6LJ
A member of the National Westminster Bank Group

Movement by pipeline

WITH THE first oil due to arrive at the Sullom Voe terminal in the Shetland Islands in the early summer, the first stage of one of the biggest pipeline networks in the North Sea will gradually be brought into service later this year. Two pipelines now run from the groups of fields around Brent and Ninian reaching separate landfalls on the mainland of Shetland. They serve as a major reminder of the importance and advantages of pipelines for the transmission of liquids and gases.

Oil flowing through these pipelines will eventually turn the Sullom Voe terminal into the biggest of its kind in Europe. The first oil through the terminal will come from the Ninian Field's southern platform, some 100 miles to the north-east of Shetland and this will then be followed by production from the Heather Field and in the autumn the first supplies from the Brent Field, the largest discovery in U.K. waters, will arrive.

By the time the U.K. reaches self-sufficiency in oil in 1979-80 most of its supplies will be flowing ashore through hundreds of miles of pipelines through the Brent, Ninian, Forties and Piper systems. Added to this almost the entire supply of natural gas to the U.K. is brought ashore by pipeline, either from the clutch of fields in the southern sector of the North Sea developed in the 1960s, or as will increasingly be the case, from the large northern fields Frigg and Brent.

Considerable though these achievements might be, however, they pale when put against the ambitious £5bn. pipeline scheme to collect North Sea gas from many pockets around the North Sea, which is currently being studied by a company set up by the Government, Gas Gathering Pipelines (North Sea) is a consultative company with both private and State-owned interests. Its final report on the options open to the Government is expected in the spring, but the preliminary report presented two months ago recommended that a starting line from fields in quadrant should be made on the first 16 such as Maureen, Brae and stage of a pipeline network costing an estimated £250m.

Quadrant

So the scheme that is now being evaluated could include the construction of a new trunk line running from St. Fergus to a point north of the Forties Field. From here one line could run northwards possibly collecting gas from fields in quadrant and another line could go south towards the Lomond Field. One of the major problems, however, is that the reservoir character of the fields that would be tapped by such a network are all different, and so at this stage it is difficult to foresee what type of pipeline might be built in the late 1980s or early 1990s.

Pipelines might at first sight appear to be the most promising way of collecting the gas from the many different fields, but the Government is also studying alternatives. David Brown Voeper Offshore has been commissioned to study the possibility of liquefying natural gas offshore, and Freese, Cardew and Rider is examining the use of gas for offshore power generation. As Dr. Dickson Mabon, the Minister of State for Energy, has pointed out, "the total quantity of associated gas is very large, the fact that it occurs in many small accumulations poses considerable problems when trying to devise an economic pipeline system. We have therefore been investigating other possible methods of transporting the gas ashore."

One important factor in whether the main gathering scheme goes ahead is the attitude of the Norwegian Government, for the economics of the network could be enhanced if gas from the median-line Statfjord Field and other finds in the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

The existence of North Sea oil and gas is of major importance for the pipeline industry, and just on the basis of existing programmes the network should reach 2,000 miles by 1980. Unfortunately from the U.K. balance of payments point of view only a small percentage of the main offshore pipework has been manufactured in Britain. However, British Steel's final entry into the market for heavy pipes, presumably influenced by the possible gas gathering network, should ensure that a bigger percentage of future work remains in the U.K.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5bn. scheme a new gas trunk line has been included that would run through Britain with a cross-Channel link to France and Belgium. This would give the Norwegians access to the energy-hungry continental market.

Onshore the U.K. is slowly moving towards the point where the Norwegian sector could also be carried to St. Fergus. Thus as part of the £5

FREIGHT AND TRANSPORT SYSTEMS III

Bemusing choice for users

MOVEMENT, storage, and loading of freight is a large business and a major element in industrial costs. Reliable services are hard to come by, the best estimates suggest that it probably represents about 8-10 per cent of the total cost of manufacture and distribution. It is an area of activity where cost pressures have been less strong than in other areas in recent years. The cost of fuel, vehicles, drivers, and repairs has been rising rapidly, and so have the overheads and cost in management of running one's own in-house transport fleet.

It is an area where manufacturers and distributors are provided with a bemusing choice of different services by an increasingly specialised and segmented range of outside contractors. And it is an activity which, in many businesses, does often command a high and invidious priority in the allocation of senior managerial time and attention.

In many firms, distribution is a process which looks after the movement of supplies into the factory and moving finished goods out to the customer or to a warehouse. It is a process which is often delegated to a specialist area with its own peculiar terminology which is increasingly being used as an integral part of any business. It is a process that needs to be looked at as a whole embracing the entire flow from raw materials to the

Integral

It is, however, much more than that. It is much more than a support service for the marketing effort—a service that aims to operate at maximum efficiency for the lowest possible cost. Physical distribution management—to adopt the awkward and off-putting terminology which is increasingly being used—is an integral part of any business. It is a process that needs to be looked at as a whole embracing the entire flow from raw materials to the

final point of distribution including handling, storage, inventory management, data processing, packaging, merchandising, and customer service.

It is a process that needs to be given as much close consideration as marketing and distribution, which needs to be related to them and them to it, and in which the full range of options needs to be considered afresh, for the full value of this adjunct of a business to be realised. None of these activities can be considered in isolation. They are all part of the balanced mix in a company's business strategy.

This approach to the role of physical distribution management may not be universally evident, but is also far from new. There are countless examples of companies which have achieved savings in cost or improvements in customer service—or both—by taking PDM seriously. In many instances, they were prompted by the dramatic changes that have taken place in the marketing and retail distribution of manufactured goods and other branded consumer products.

The success of these products depends upon mass advertising and attractive packaging to build new markets and repeat purchases, upon high volume

sales and close stock control to ensure low unit costs, and upon a rapid and flexible responsiveness to consumer needs. These developments have in turn been associated with a large-scale reshaping of the structure of wholesale and retail distribution—the decline of the small, over-the-counter shop and the arrival of the self-service store, the supermarket, the multiple, discount house, cash-and-carry, hypermarket, and out-of-town shopping centre.

Prompted

In other instances, a new appreciation of the role of physical distribution management may have been prompted by changes in the nature of services offered by outside carriers. A growing number of hauliers have been developing more and more specialised services to meet the requirements of particular customers or particular sectors of industry. Many are also providing a full range of distribution services including not only delivery but also warehousing, stock control, invoicing, account collection, sales analyses, cost breakdowns, and assessments of the effects of changes in packaging, frequencies of delivery, lead times, special promotions, and so forth.

Examples are always inviolable—there are so many that could be given. But perhaps one might be cited as illustrative both of a consumer-goods group and a specialised transport group. It is of course Unilever—a world-wide group in which a single day's delay throughout the group's operation would require an extra £16m. worth of stock. Most of Unilever's transport interests were set up or acquired to provide the group with a standard of service they could not obtain elsewhere. They soon moved on from storage and delivery to the provision of a whole range of services, and this in turn led to the provision of similar services for outside customers. SPD, one of the Unilever companies in this country, now provides a high-street distribution service for 35 outside firms as well as 19 Unilever companies, and the number of outside contracts is growing all the time.

Companies of Unilever's size have a relative wealth of managerial talent to be able to focus on such matters. Companies considerably smaller in size are often not so well-placed. The distribution manager is too busy running his parish and his colleagues in the hierarchy too preoccupied with their own problems. Even if the need for a fresh appraisal is felt, there is

not the time—or it is hard to judge the relative merits of different outside carriers offering different levels or ranges of service.

This is where the distribution consultant can come into his own. There are not many in this country. But the Freight Transport Association, the representative body for industrial users of freight transport services, is now running a consultancy service in conjunction with three firms of consultants. The consultant may take anything up to a year to complete his investigation. But at the end of that time the consultant will have acquired a comprehensive grasp of his client's operations and its management and monitoring systems. He will present the options and evaluate them. He will be ready to assist in the establishment of a new system and the recruitment of a managerial team to run it. And his fee will be paid for many times over by the savings produced by his recommendations.

The first step however is for distribution—or rather physical distribution management—to be regarded as a sufficiently important matter to be considered seriously right at the top of the company's managerial hierarchy.

C.J.

Pipeline

CONTINUED FROM PREVIOUS PAGE

line network for the most natural gas liquids, ethane, important petrochemical building blocks, ethylene. Such grids already exist in continental Europe.

In the U.K. there is already an ethylene pipeline crossing the Pennines from ICI's petrochemicals site at Wylton on Teesside, to its plants on Merseyside and also connecting with the Shell installations at Carrington. Now a second pipeline is almost complete between Wylton and BP's petrochemical site at Grangemouth on the Firth of Forth. The 155-mile pipeline is from Teesside to the Forth is part of a £150m. scheme which includes the building of a 500,000 tonnes a year ethylene plant. This complex should come on stream towards the end of the year.

The pipeline will give the chemical companies involved a welcome new flexibility in moving around the country large tonnages of ethylene and in balancing the needs of different sites. If the planned cracker for Mossburn goes ahead in 1980, it would not be surprising if this were to be joined by a short pipeline across the Forth to the BP site, thus connecting both Shell and Esso to the northern end of the line.

The proposed Mossburn plant is to be joined to its feedstock source via a 185-mile pipeline to St. Fergus, near Peterhead, which is due to carry

But it is not only liquids and gases that will be carried by pipelines in the future. Industries which depend on a constant supply of raw materials such as coal, ore or limestone are showing increasing interest in the use of pipelines for the rapid movement of solids. First applications are expected to be in the transport of bulk solids, such as coal, industrial wastes or gravel, and 500,000 tonnes a year ethylene plant. This complex should come on stream towards the end of the year.

The obvious growth area for pipelines in the U.K. may be for crude oil and gas developments in the North Sea, but in 1978 pipelines already took a share of more than 18 per cent. In the transport of refined petroleum products in the U.K. And with systems for the movement of solids such as iron ore, mixed in a slurry with iron sand and water, already in use in Peru and New Zealand, pipelines are set for an era of major development.

Kevin Done

Major role for forwarders

TRADITIONAL rallying insurance, chartering, and of successive Chancellors of Exchequer has been to British industry to more. Yet it takes a lot more than words to convert this for action into actual standing performer" even its. One of the most important factors—if not the only one—is the ability of a leading role. In this role, the freight forwarder must be responsible for providing the range of services and to companies in world markets to them mainly with their bution problems but also other aspects of their national trading.

capacity to develop markets depends largely on the ability to use and to respond immediately to short-term market fluctuations. The maximising of a market may in no way be influenced by the distribution.

There are seven main functions which the efficient freight forwarder has to carry out:

- 1. planning and costing of by land, sea, or air, to the correct blend of ability, speed, and economy;
- 2. pre-booking and collection of transport and space;
- 3. preparation of documentation relating to shipping, Customs clearance;
- 4. presentation of goods in the warehouse required;
- 5. provision of ancillary services when required, such as warehousing, marine insurance, charter, etc.
- 6. provision of advice to shippers and exporters concerning distribution links to world markets, and provision of quotations for buying or selling

any of these services. The freight forwarding industry is dominated by privately-owned companies, which, however, some of the in the industry.

According to a recent survey by Datametric, "the implications of the private ownership of freight forwarding are smaller, less complex, and also less profitable than the public ownership of companies." But it is the fact that the sample is small to place any significance on the

may also be the case that privately-owned companies are primarily concerned to use profits, and for this the profit margins are high. This would not explain, however, why as many as 40 of 55 companies reviewed sustaining losses according to "latest years' accounts."

One of the few quoted companies directly involved in forwarding is the Lep, which has over 30 offices throughout the U.K. and a network of associated companies throughout the world. It also has a number of companies which look after ancillary services as

Replace

For example, the Customs and Excise is planning to replace the LACES air cargo data processing system with the updated ACP 80, as well as their own in-house computer system.

The industry is well served by the Institute of Freight Forwarders which is helping its 2,700 individual and 630 corporate members to maintain control over the pattern of developments which are pointing the industry in a new direction.

A detailed study of the overall forwarding requirements for the next decade had identified the real training needs of the future. Consequently the Government's Training Services Agency has just set up the International Freight Forwarding Industrial Training Council under the leadership of the Institute. The setting up of a training council, however, does not mean that the Institute will cease to have its own education and training committee which provides its present training needs. This will continue but will work closely with the new council. The Institute is also reviewing its membership pattern and the professional requirements for membership as part of the overall package of training and other changes which are being introduced.

The Institute is also keen to see much tighter controls exercised over people who operate forwarding services without any proper qualification or backing. But it acknowledges that the final arbiter of standards in the industry is the user. But if companies using freight forwarding services base their decisions on price rather than service, and professional expertise, then standards will suffer. The Institute points out that far too many organisations judge their own shipping department's performance on the actual cost of freight charges to send their goods overseas. But this is only one narrow element of decision-making in the overall distribution process.

The question remains whether the U.K. freight forwarding industry may be subjected to Government intervention in the form of a licensing system, as operates in the U.S. The Government is understood at present to be reluctant to bring in legislation on this issue. But the EEC is also looking at the problem of regularising the activities of freight forwarders between member States.

David Churchill

THE NEW DODGE 300 SERIES RANGE.

FOR OPERATORS WITH A HARD NOSE FOR PERFORMANCE AND A SOFT SPOT FOR DRIVERS.

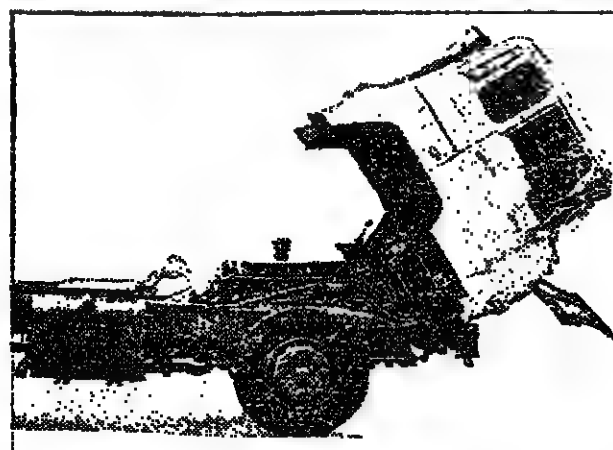


The new Dodge 300 Series is a range of tough 36.5 and 38 tonne GCW/GTW trucks built for hard work on punishing long-distance routes.

They're fast, but as they eat up the motorway miles, you'll find the 300 Series trucks give you a high performance with impressive economy.

They're dependable. The Chrysler 11.9 litre turbocharged diesel, Fuller RTO 9509A nine-speed, range-change gearbox, Lipe-Rollway twin-plate, clutch and Chrysler double-reduction axle are a power-packed combination already proven in rigorous reliability trials in Britain and across Europe.

And they're superbly comfortable. The 64° tilt cab is roomy and well designed and is



impressively equipped, giving drivers everything they need. Standard fittings include a suspension seat and even a radio. The R38 models have sleeper cabs.

The new Dodge 300 Series range comprises:
R36: 36.5 tonne GCW tractor unit.
R38: 38 tonne GCW tractor unit.
R38D: 38 tonne GTW drawbar rigid.

All are backed by Chrysler's new heavy-truck warranty package which includes 12 months' unlimited-mileage on the entire vehicle, plus a second year's unlimited-mileage warranty on designated power train components. Full details available from your Dodge truck dealer.

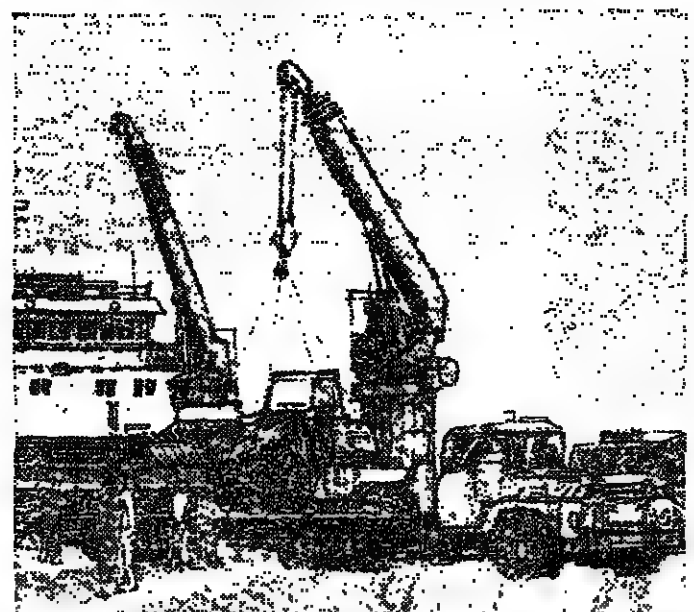


CHRYSLER UNITED KINGDOM

THE NEW DODGE 300 SERIES RANGE. ADDING MORE WEIGHT TO DODGEMANSHIP

FREIGHT AND TRANSPORT SYSTEMS IV

Freighting to Nigeria?



Profit from our Experience

Quayport firmly believe that experience is the key to many of the problems associated with freighting to Nigeria. We further believe that with over 47 successful conventional cargo discharges in the port of Lagos, over the past two years, Quayport are one of the most experienced lines currently operating a Europe to Nigeria service.

Using our own shallow draft vessels equipped with self powered telescopic cranes with a heavy lift capacity of up to 72 tonnes, we can achieve the rapid berthing and unloading required today. Whatever the port conditions.

And with our own staff on site to co-ordinate vessel discharge we can ensure a rapid and profitable turnaround for you.

We have loading facilities at most European ports, and agents in Sweden, Germany, France and Spain. Our rates are more than competitive and our service now includes vessels to Warri and Port Harcourt. So call us and profit from our experience.



Alley House, 23/27 Carlton Crescent,
Southampton, Hampshire, England.
Telephone: Southampton (0703) 36644/5/6
Telex: 477710

Road hauliers in low spirits

AMID THE general signs of for control over the flow of relief among Ministers and industrialists that the ten per cent pay guideline looks increasingly as if it will stick, Britain's road hauliers are feeling in low spirits.

One section of the industry, predominantly that in the Midlands, has run into Government blacklist problems because it could find no concerted way of resisting the pressure for a 15 per cent settlement from a section of the transport workers' union for its toughness. Another section, which still has not settled its wages council, is facing the consequences of its labour costs increasing out of line with other industries at a time when margins are too fine for comfort anyway, while yet another section has dug its heels in over the 10 per cent and provoked strike action.

All this has happened at a time when the industry is in a state of some disarray. It has lost its wages council, without finding any central bargaining alternative; it has lost its fight against EEC drivers' hours and faces the consequential erosion of productivity; it has lost its argument with Government that lorries are overtaxed and it has lost the last vestiges of any ability for central guidance on tariffs. Moreover, as a sequel to several of these events, although mainly to do with inability or unwillingness, to obey the 10 per cent limit, the industry is being investigated by the Price Commission.

If these developments were not enough, road haulage is like the economy in general, still in the trough of recession and punch-drunk with the pace of inflation in its capital equipment. The heavy lorry and its spare parts have increased in price by between 150 and 200 per cent in six years.

It is not surprising that in this climate remedies which appear desperate to outsiders are being sought. The recently appointed Foster committee of inquiry into operators' licensing will hear many demands for a return to something like the pre-1968 licensing regime, when public hauliers were protected against competition from own account fleets: pleas for minimum tariffs in the industry and

No one really knows to what extent these warnings, which have been the subject of a thorough Road Haulage Association campaign in the last 12 months, have been heeded, especially by the owners of the almost 40 per

cent of vehicles which are in fleets totalling fewer than six lorries. The Freight Transport Association's monitor of haulage rates suggests that last year hauliers priced a couple of points ahead of inflation and certainly loss-making companies within the NFC have been pricing aggressively. But the industry's leaders say that their own information puts beyond doubt the claim that hauliers' charges are far from keeping pace with inflation.

This raises the question of how hauliers are actually surviving. Although road haulage's record of 400 bankruptcies was one of the worst in 1976, it is hardly a large proportion of the almost 40,000 operators.

Probably the answer is that corners have been cut on maintenance and, among the small operators, overheads will have been reduced and payrolls cut. Total employment by road haulage has been falling steadily by about 3 per cent a year since 1973 to a figure below 200,000. The truck sales figures between 1973 and 1976 bear witness to the fact that purchases of new vehicles has been put back—a process which can only go so far without disastrous consequences in terms of efficiency and ultimately finance. In the last year, a pick-up in the market suggests this point has been reached for many operators.

Given recent rates of inflation, it is probably sound practice to keep the age profile of a fleet to a minimum. P and O Road services, for example, runs at an average of three years only.

So far there has been less hard evidence that the industry



Heavy duty equipment being loaded for transport to Norway.

has slid into financial ruin than there has been clamour that it is about to do so through what Mr. Duncan describes as "a monumental cash flow problem." What some in the industry fear is that the present unrest on pay—and even those employers who have settled will not rest easy that they can count on holding that settlement for a year if the guidelines are substantially overturned elsewhere—will push some hauliers over the edge.

Added to these most pressing difficulties of the economic scene and price/pay code problems, the industry does not feel it is getting much support from the legislators. Mr. John Silbermann, a national vice-president of the Road Haulage Association, said not long ago

that the three factors together constituted "the most serious peace-time threat to Britain's road haulage industry."

The most costly piece of legislation in the air is the change to the EEC eight-hour driving day; a transition to be spread over three years, but which has already placed serious restrictions on long-distance trucking for non-rigid vehicles.

In addition, the industry will not be surprised to find a further increase in vehicle excise duty for the heaviest lorries in April's Budget, although it entirely rejects the road track calculations on the basis of which it would be justified.

Within the Transport Bill

now before Parliament, there is not much for hauliers to worry about, although the increase in powers for the authorities to divert lorries suspected of overloading to weighbridges will only be the first shot in the Government's campaign to, as last year's White Paper put it, "civilise the heavy lorry." Many hauliers do not object to this theme of higher environmental standards for lorries, but they feel that the Government is not offering much in return. What they would like most as compensation is some sign of movement towards higher maximum vehicle weights and, less urgently, a re-think of the cuts in the road building budget.

Ian Hargreaves

Highways programme to run piecemeal

IT IS a curious coincidence that the middle decades of this and the two previous centuries should all have witnessed a transport revolution. Two hundred years ago the age of canal building was in full swing. Last century was the age of railway building. This century the major change has been in roads and road transport—or, to be more precise perhaps, in the availability of private transport for the individual business or household. None of these revolutions lasted for very long. There was a great flurry of new construction on the Continent as well as in Britain—which after a few decades peaked out and gradually waned. Each of these revolutions in turn generated social pressures and criticism which to one degree or other played a part in setting limits to the extent and rate to which the new mode of transport was developed.

It we look back to see what the Victorians were writing and saying, for example, we can come across much of the same kind of environmental criticisms of the railway builders as are now levelled at the road planners. We can even find similar arguments being made about the need to preserve and make fuller use of canals as are now said about the railways.

Peaked

To this extent, therefore, we ought not to be surprised by the fact that the volume of road building has peaked out or is likely soon to peak out in most industrialised countries as well as in Britain. Once the main networks have been laid down and the aspiration of having one's own transport has become close to being a reality for most businesses and households, then the pace of new construction is bound to begin easing off.

Nor should one be altogether surprised by the welter of criticism which road building has aroused. The planning and construction of new roads may promise both social and economic benefits to those who will use them—including one must add the benefit of cheaper and speedier deliveries to shops and stores. But the process causes very considerable disturbance to the communities through which they are being cut.

To some extent, too, the opposition was stimulated by the particular manner in which road planners set about their task in the 1950s and 1960s. They tended to build roads on the cheap to suit civil and traffic engineering considerations and with insufficient regard for the impact they would have upon the neighbouring environment, including, in several instances, the well-being of those who lived or worked in "riparian" premises. The early wave of enthusiasm for road-building, which attracted politicians and the public generally as well as the engineers, led to dizzy

ideas about carrying magnificent new concrete expressways through our congested cities. Was it not Dr. Buchanan who argued that this was the way to preserve the urban environment, just as the way to safeguard the peace of a hospital ward was by having corridors through which staff and visitors could circulate?

Other factors contributed too—for example, the trend towards larger lorries (something else to which the politicians initially gave their blessing). Bigger vehicles helped road carriers to limit the growth in the size of their fleets, far more so than the growth in the volume of freight they carried as well as in the numbers of cars and vans.

Indeed, the actual figures show a 10 per cent fall in the number of lorries of more than 11 tonnes unladen weight in the last ten years, a period during which freight ton-miles by road grew by 30 per cent, and the number of cars and vans increased by 55 per cent. But, perhaps because to-day's lorries are bigger, there is a widespread belief that the number has in fact increased.

Then there was the shock of the OPEC oil cartel and, the sudden realisation that perhaps one day the supply of fossil fuels—especially oil—might be exhausted; the desperate search for public expenditure cuts at a time when road-building no longer won many votes; the desire to ease by subsidies and other mechanisms the threat that the use of cars for leisure and travel to work was increasingly posing to the economics of bus and rail passenger operation; and the growing doubt about the ways in which the case for particular new road schemes have been evaluated and presented, doubts which the recent Leitch report has in part supported.

All these factors have contributed to one degree or another to the decline in the roads programme. In the past four years expenditure on new construction by local and central government has been reduced by 40 per cent in real terms and expenditure on maintenance has been cut back by 20 per cent. Compared with planned levels of expenditure, the cut-backs have of course been even greater.

At one time in the early 1970s, the construction of some 3,500 miles of strategic routes—motorways and dual carriageways—was envisaged by the early 1980s and a total of 4,200 miles by the mid-1980s. By the mid-1970s the initial target had been reduced to 3,100 miles and deferred to the second half of the 1980s which the later target of U.S. miles had been put off to the 1990s. To-day, with some 2,500 miles of motorway and dual carriageway roads in use, the targets are even more uncertain.

The programme, last year's transport policy White Paper declared, will now be a flexible one. Routes are to be improved piecemeal with different stretches being improved in different phases to differing standards. Parts of some schemes will be built to motorway standards and other parts to dual carriageway or even single carriageway standard. On some routes it will be a case of a staggered construction of bypasses around the worst trouble spots, leaving the gaps in between to be tackled later—if at all. In any case, following a decision announced a couple of years ago, new roads are now being built to reduced design standards in relation to the volumes of traffic that are expected.

Peculiar

It is difficult to resist the conclusion that the pendulum has swung too far too quickly. The case for a particular size of road-building and maintenance programme may not be an easy one to establish. But it always seemed a peculiar form of logic to argue, as Ministers did, that investment in new roads should be cut back in order to make more resources available for the subsidisation of bus and rail passenger operation, when the case for these subsidies rested upon the need to assist public transport against the competition of the private car and the case for road construction had rested on the need to expedite and cheapen the cost of moving freight.

Similarly, one is bound to suspect that road-building became a natural target for spending cuts because it was capital expenditure; and it was always much easier politically for governments to cut back on capital expenditure rather than current expenditure (and thereby pass the problems of redundancy to the private sector).

Furthermore, the reductions in spending have had the effect of delaying even further the achievement of the Government's own current road programme priorities. The regional needs of Scotland and Wales have to a large extent been insulated from the cuts but not those of the South-East. The M25 orbital route around Greater London and the M1 towards East Anglia, which featured in the original 1,000 miles target of the Macmillan Government, will now not be completed before the mid-1980s. The improvement of routes to ports, such as Southampton, Harwich, Tilbury and Folkestone, is still a long way short of becoming a reality. The industrial needs of the Midlands have still to be properly served, and there are a very large number of towns and villages awaiting to be relieved by bypasses.

The critics of road building may say it is all very well basing priorities upon industrial, regional and environmental considerations but road users—including road carriers especially—must pay their full proper share of the costs of the infrastructure they use. In principle, there is everything to be said for this last point. But one must have regard for the practicalities.

First, it is not easy to calculate precisely what each mode and what each user should bear. Attempts have been made for well over two decades both here and on the Continent to arrive at a workable formula for identifying, measuring, and allocating road track costs. Even if the direct costs—construction, maintenance, policing, accidents and so forth—can be identified and measured, the allocation between and within different categories of users is bound to be arbitrary.

Then there is the question of the indirect or external costs—such as noise, pollution and damage to amenity. Should one try to evaluate and charge these, or would the better approach be to tackle these problems directly through progressive improvements in vehicle technology and design? Where would the incentive for improvement be if these aspects were subsumed in vehicle and fuel taxation? Is it not better to set progressively higher standards through legislation. The cost of improvements and the research that led to them would still be borne by the user (and thus by his customers, which means you and me). But in the meantime the problems of noise and pollution would have been reduced.

Furthermore, it is not the road-carriers fault if the ratio between track costs and fuel and vehicle taxation falls. It is the fault of governments for failing to adjust these taxes in line with the rate of inflation. In any case, the ratio can change between a boom and a recession, as well as according to whether road investment is charged on a "pay-as-you-go" or "public enterprise" basis. Above all, the idea of charging track costs through the taxation system is intended to provide a measure of parity of competitive opportunity to all freight carriers, irrespective of mode, rather than simply to protect railways.

In practice, because rail freight is now expected to meet only its "avoidable costs", it makes hardly any sense to accept this as a form of rough justice. But it underlines the difficulties of trying to apply the track costs approach with any degree of sophistication. C.J.

'Freightliner guilty of exploitation?'



"We're the first to admit that using containers enables us to exploit the flexibility of road plus the speed and economy of rail.

It ensures that our customers get the best of both worlds in a unique freighting package that's almost impossible to match. And our advantage is increasing all the time.

So, before you lose sleep over the legislation restricting drivers' hours and mileage limits, it could pay you to give us a call. We're always open to a little exploitation."

Freightliner - today's answer to tomorrow's regulations.

Freightliner Limited, 43 Cardross Road, London NW1 2LR.

Freightliner
— the best of road and rail put together

FREIGHT AND TRANSPORT SYSTEMS V

Developments in road transport

COMBINATION of more trade with Europe and, though less urgent, for road transport to the East continues to produce conditions resulting in a queue of countries seeking bilateral agreements," it said.

The most recent developments are the negotiation of agreements in varying stages with the Soviet Union and a large number of countries to the east ranging from Turkey to Afghanistan. The department is also watching developments in north-west Africa on the grounds that this could become a key route to West Africa, although nothing has yet happened there to any great extent.

As in European countries, the old problem is that most of these countries send virtually no vehicles to the U.K., so the U.K.'s bargaining position is not strong.

Discussions have also taken place with the Republic of Ireland where, until recently, the balance of advantage appeared to lie in not having an agreement with the Republic, since in practice most British hauliers could obtain licences from Dublin without difficulty, but this position has shown signs of changing.

The most consistent cause of discontent among hauliers is the allocation of permits, on which the Department of Transport's stated aim is to get the best use out of the scarce permits available. However, this policy is open to a certain degree of interpretation.

Ideally, it is suggested, vehicles should be fully loaded in each direction with goods of the highest value and the difficulties may arise, original allocation system sought. It said in a recent practice. But as traffic volumes grew the system was found to be too cumbersome.

It was therefore progressively replaced with the block allocation system, based on the number of permits received in previous years. But this, too, presented a major problem by creating a closed shop of existing operators—one which in turn was partially resolved by the use of increases in quotas.

Half of quota increases is now used to improve the existing block allocations and the other half to admit companies without block allocations, providing opportunities for growth to those already in the market and at the same time admitting new companies.

As the department points out, however, the selection of these new companies is extremely difficult, given that only a limited number of permits is available. The first of these decisions is whether to give relatively few operators a relatively large number of permits or whether to share them more thinly among a larger number of companies. The decision as to which operators should be chosen is even more difficult.

In general, the policy pursued by the department is to assist those companies which have demonstrated some degree of self-help, particularly by use of co-operation quotas of the road-rail systems.

In 1976, however, after a substantial easing of the French quota, an experiment was attempted under which any operator who chose to apply was given eight French permits. More than 1,000 companies did so and, despite complaints about the limited number, they were at least allowed into the market.

One of the most important recent developments has been the increased traffic through East Germany (the German Democratic Republic). This growth was encouraged by the move from Ludwigshafen to Munich of the W. German Federal Railway's piggy-back terminal, with a substantial increase in the price charged.

Of the countries on the route only Hungary imposed a quota, of which in previous years only about one per cent. had been used by British operators. However, use of that route grew to such an extent that in the summer of 1976 its use had to be restricted because of pressure on the Hungarian quota. Although the restrictions were subsequently eased later in the year, it became clear that Austrian and Hungarian permits would have to be added to those for which annual allocation systems had to be devised last year.

The most recent negotiations have taken place with Iraq, Syria and Jordan, and meetings with representatives of each country have taken place. An agreement has been reached with Turkey, operating from the start of this year, which provides a quota large enough for British needs.

The department has also received a surprise approach from Afghanistan to negotiate an agreement, largely because of that country's new policy of transporting exports such as skins and similar goods overland through Europe. Cyprus has made a similar approach for negotiations.

Within Europe itself the most significant change for some time has been the 20 per cent. increase in the EEC quota, the first since the 1975 ruling which pegged the number of permits at 272. A meeting with Italian representatives has also taken place, again for the first time in three years, which resulted in an increase of 30 per cent. in the quota and a generally more relaxed attitude on their part.

The major concern in Europe at present is the attitude of Austria, which is seeking to impose a large increase in tax from July 1—assuming that this measure is passed by the Austrian Parliament. The EEC is in the meantime bringing considerable pressure to bear on the Austrians and has made hints that EEC aid for infrastructure developments may be available if a softer line is taken.

Lorne Barling

As the department points out, however, the selection of these new companies is extremely difficult, given that only a limited number of permits is available. The first of these decisions is whether to give relatively few operators a relatively large number of permits or whether to share them more thinly among a larger number of companies. The decision as to which operators should be chosen is even more difficult.

In general, the policy pursued by the department is to assist those companies which have demonstrated some degree of self-help, particularly by use of co-operation quotas of the road-rail systems.

In 1976, however, after a substantial easing of the French quota, an experiment was attempted under which any operator who chose to apply was given eight French permits. More than 1,000 companies did so and, despite complaints about the limited number, they were at least allowed into the market.

One of the most important recent developments has been the increased traffic through East Germany (the German Democratic Republic). This growth was encouraged by the move from Ludwigshafen to Munich of the W. German Federal Railway's piggy-back terminal, with a substantial increase in the price charged.

Of the countries on the route only Hungary imposed a quota, of which in previous years only about one per cent. had been used by British operators. However, use of that route grew to such an extent that in the summer of 1976 its use had to be restricted because of pressure on the Hungarian quota. Although the restrictions were subsequently eased later in the year, it became clear that Austrian and Hungarian permits would have to be added to those for which annual allocation systems had to be devised last year.

The most recent negotiations have taken place with Iraq, Syria and Jordan, and meetings with representatives of each country have taken place. An agreement has been reached with Turkey, operating from the start of this year, which provides a quota large enough for British needs.

The department has also received a surprise approach from Afghanistan to negotiate an agreement, largely because of that country's new policy of transporting exports such as skins and similar goods overland through Europe. Cyprus has made a similar approach for negotiations.

Within Europe itself the most significant change for some time has been the 20 per cent. increase in the EEC quota, the first since the 1975 ruling which pegged the number of permits at 272. A meeting with Italian representatives has also taken place, again for the first time in three years, which resulted in an increase of 30 per cent. in the quota and a generally more relaxed attitude on their part.

The major concern in Europe at present is the attitude of Austria, which is seeking to impose a large increase in tax from July 1—assuming that this measure is passed by the Austrian Parliament. The EEC is in the meantime bringing considerable pressure to bear on the Austrians and has made hints that EEC aid for infrastructure developments may be available if a softer line is taken.

Lorne Barling

Blazing the trail for Britain to keep industry on the move.



Lorne Barling

Trucks of the future

FIGURES for the first 1878 are anything to go the heavy goods vehicle as come through the of the end of 1977 and the growth trend it lashed for most of the ad of that. This is rise rises, increased costs and the prospect of annual increases in ly.

ector has tried to its car-producing y venturing the hope increases in vehicles be kept to two a year, again as with cars, ing up four times a he industry struggled with high inflation in basically a depressed

the all-important facing the industry are the extent of the recovery, the extent to at will benefit truck and which truck ill benefit in the past, although the small-um lorry-buyer has largely faithful to the product, the market at end has become a nd in which the Euro-trers have reaped an harvest, at least in market penetration if s in profits

e U.K. builders are sick, with Leyland pro- new version of the for the recent truck Amsterdam and aving already updated The smaller pro- ce Foden, ERF, and Atkinson have all their vehicles in order e with the European n in Britain and to heir own chances of the Continent.

all this activity has revolution. In the of comfort provided ivers. Previously the were able to adopt a valier attitude which ed the mollycoddling ivers, who were ex- shake their bodies their eardrums to n, freezing in the t being nearly roasted ie summer.

as a result of union it mainly as a result manufacturers setting gher standards, cab have been improved J.K. industry has now ght up. This is likely to downwards so that of all cab interiors, short-haul smaller likely to improve over miles per gallon by 10 per cent. five years to the point

This has yet to be proved, how-

ever, and is also dependent on a good marriage with the right gearbox, axles and tyres.

In all of these areas more work is being done but perhaps the single most significant move forward will be European agreement on standard specifications at the heavy end.

At the moment the strongest rumour of many that have emerged from the depths of the EEC Commission over the years is that some sort of consensus is forming around 7 bhp per tonne with a maximum weight of 40 tonnes. Undoubtedly this would at best take a long time to ratify and at worst will be thrown back into the melting pot.

There is also a wish among both tractor and trailer manufacturers to move where possible to the Eurotruck, although here it could be the traditional attitude of the operators looking for a bespoke lorry, rather than the intransigence of national legislators, which will hold up uniformity.

Trailer and body manufacturers in particular would like to see some standardisation—recently Crane Freuhauf formed Freuhauf Europe to look at overall European opportunities—but progress is likely to be slow except in certain areas like curtain or aluminium-sided tilts which are used on a pan-European basis.

There is also some growth in the market for demountable bodies but as an alternative to a fifth-wheel articulated trailer it will be some time before they are a serious challenge.

There is also the question of an increasing amount of legislation, particularly where a lorry is being used to transport food. More and more countries now require refrigeration of more and more varieties of food—good business for the small



Demountable refrigerated box van bodies by Crane Freuhauf Rigids. This particular consignment, destined for Iran, has refrigerated devices in the side walls which are completely self-regulating.

where commercial vehicle manufacturers will be working to the same standards of driver comfort as apply to cars.

At the same time, however, operators are still cost-conscious and there will come a time when all manufacturers will have reached an acceptable standard of cab comfort, at which point other considerations will come to the fore.

Already in Europe one of the main selling points is on cost per kilometre. This takes in not only the fuel consumption and servicing charge but average downtime due to breakdown and time lost in waiting for parts.

Manufacturers are keen not only to emphasise reliability but also to build up their spares and service back-up.

This is happening in Britain too, with most of the major manufacturers offering a 24-hour emergency breakdown service and a priority parts delivery service in order to persuade buyers to use their lorries.

Other persuasive methods of a more traditional nature have also been the order of the day—sometimes for a distributor it is worthwhile making very little profit on the initial tractor sale if he can make it up in future parts and service sales—but the manufacturers can ill afford to squeeze their margins by too much for too long.

In the meantime engine manufacturers seek to improve the fuel consumption figures—Cummins for instance recently introduced a big-cam version of their 280 hp engine which the company claims will improve likely to improve over miles per gallon by 10 per cent. five years to the point

This has yet to be proved, how-

ever, and is also dependent on a good marriage with the right gearbox, axles and tyres.

In all of these areas more work is being done but perhaps the single most significant move forward will be European agreement on standard specifications at the heavy end.

At the moment the strongest rumour of many that have emerged from the depths of the EEC Commission over the years is that some sort of consensus is forming around 7 bhp per tonne with a maximum weight of 40 tonnes. Undoubtedly this would at best take a long time to ratify and at worst will be thrown back into the melting pot.

There is also a wish among both tractor and trailer manufacturers to move where possible to the Eurotruck, although here it could be the traditional attitude of the operators looking for a bespoke lorry, rather than the intransigence of national legislators, which will hold up uniformity.

Trailer and body manufacturers in particular would like to see some standardisation—recently Crane Freuhauf formed Freuhauf Europe to look at overall European opportunities—but progress is likely to be slow except in certain areas like curtain or aluminium-sided tilts which are used on a pan-European basis.

There is also some growth in the market for demountable bodies but as an alternative to a fifth-wheel articulated trailer it will be some time before they are a serious challenge.

There is also the question of an increasing amount of legislation, particularly where a lorry is being used to transport food. More and more countries now require refrigeration of more and more varieties of food—good business for the small

Trail Blazers stand for the independent British tradition that culminates in ERF... a tradition carried forward by design and engineering leadership.

With a long track-record of major innovation, the ERF tradition has been built on advanced engineering achievement. For the operator and driver, this means a whole range of major advantages such as:

■ The ERF SP cab, built of corrosion-proof moulded S.M.C. glass fibre on an immensely strong steel safety frame specially treated with rust inhibitors. So it retains its new condition year after year of service.

■ The remarkable new ERF non-reactive suspension bogie designed for multi-wheel chassis—which simply and effectively equalises the load between rear axles and thus eliminates undesirable road behaviour under braking or acceleration.

■ Twin ram, hydraulically operated cab tilt mechanism, designed with safety first.

■ One of the finest integral power steering units in the world.

■ Comprehensive standard equipment including quartz halogen headlights and an air drying unit to process all air used by the braking system.

Not surprisingly, ERF has acquired a reputation which its policy of constant improvement, research and refusal to compromise is geared to maintain.

It has enabled ERF to achieve for operators and drivers alike, trend-setting standards of performance, economy, handling and comfort—and above all, of unsurpassed safety.

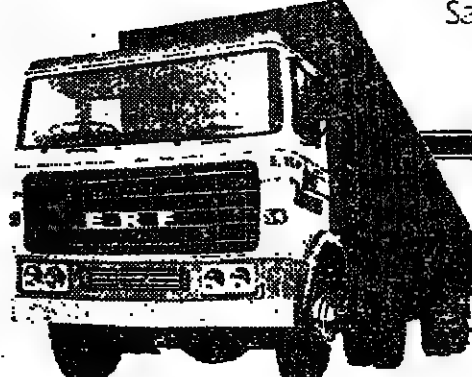
Every ERF Distributor plays a key role in ensuring that the total organisation from design and manufacture to spares and service support remains closely geared to the basic needs of industry—expressed as Return on Investment.

That's why you'll find a service network right across the country organised to keep your trucks running smoothly.

And to earn their keep dependably—year after year!

Assess the ERF Trail Blazer range in this light for yourself—we have every confidence that your own business will find good reason to join in "Blazing the Trail" for Britain!

ERF Limited Sun Works,
Sandbach Cheshire CW11 9DN
Tel: Sandbach (093 67) 3223 Telex: 36152



ERF Trail Blazers

—the best of buying British.

Stuart Alexander

FREIGHT AND TRANSPORT SYSTEMS VI

Shipowners at odds over policy

"AS I watch these two different areas of my responsibility, shipping and civil aviation, I ask myself whether perhaps shipping is not moving in the direction of civil aviation, freedom by regulation instead of freedom by right." So said Mr. Edmund Dell, the Trade Secretary, in an address to the General Council of British Shipping at the end of last year. The tone of his speech was one of hints rather than proposals, but it struck in the direction of a theme which, apart from the general condition of the economy, represents the greatest source of anxiety to shipowners.

The question raises itself from a variety of angles. On the one hand we have the long-drawn-out saga of confrontation between U.S. anti-trust philosophy and the self-regulation of liner shipping through the conference system; on the other the free-boating competitiveness of the Russian merchant marine, which has undercut its way to a significant presence in a number of the world's most lucrative cross-trades.

Surrounded by such diverse antagonists, European shipowners are having the utmost difficulty in maintaining a systematic defence of their practices and indeed of finding anything like basic agreement among themselves. There appears to be general support for the proposition, for example, that the best way to deal with the Eastern bloc threat is by concerted action through the EEC, but there is little common ground about the fundamental question of access to trades, as we have seen in the sometimes bitter differences of view between member States over the UNCTAD liner code.

One of the problems is that shipowners have not traditionally welcomed the attentions of Government other than in strictly defined areas such as safety, crew standards and the like. Now the industry is faced with a number of international political issues which it does not possess the power to resolve itself. In no other industry is the world-wide debate about protectionism so pertinently focused.

The timetable for processing all these issues remains uncertain, but if last year was principally one for bilateral efforts to alter Soviet policy—Ministers from West Germany and Britain visited Moscow on the issue—1978 will be the year of forging a common programme within the EEC.

Mr. Richard Burke, the EEC Transport Commissioner, has said the objective is more to repair trade defences within the Community in order to negotiate from a position of strength than to seek a confrontation, but there is a body of opinion among shipowners which believes tougher direct

action will be called for sooner rather than later. Certainly there is agreement that firm and public commitments to restrain expansion must be won from the Russians before the formulation of the next five-year plan to run from 1980. By the end of the present plan, a further 1m. deadweight tons will have been added to that fleet, which is now the sixth largest in the world.

The Western argument is that the Russians are using State-financed ships to undercut liner conference rates (although the Soviets are members of about a dozen conferences) in order to earn foreign currency and possibly even to undermine the viability of Western merchant shipping. On some routes a Comecon share of 35 per cent. has been achieved in a period of three or four years and in the last five years, traffic on the Trans Siberian Railway has quadrupled, amounting now to about 15 per cent. of the total Europe-Far East trade.

So far the Russians have shown themselves willing to talk, but unwilling to produce tangible evidence that they intend to restrain their shipping lines or their railway. The Whitehall view is that this leaves the West with no alternative but to prepare the ground for action against the Russians, with the hope that the evidence of preparation will itself jar the Russians into a change of heart. So far this preparation has involved persuading governments, which lack powers to discriminate against a foreign fleet to take them and the Belgians have undertaken to fill the remaining significant gap within the EEC—a gap which has bestowed upon Antwerp the nickname of "the largest Soviet port in Europe."

Once the national powers are in the statute books or close to being there, we can expect some formal declaration of annoyance from the Community and perhaps eventually token acts of discrimination against the establishment of Eastern bloc shipping agencies in Europe or special levies or quota restrictions on Comecon shipping movements.

The EEC will also have to come to grips this year with divisions among its members over the UNCTAD liner code, which enshrines the principle of a 40/40 seaborne trade share-out between the countries of import and export, leaving 20 per cent. for cross-traders. France, Belgium and Germany have already signed the code, which is anathema to a country like Britain whose merchant fleet is predominantly dependent upon cross-trading. Having put up several proposals in the past two years, all of them entirely

unsuccessful, Britain is now trying to come up with a new position in time for the June Council of Transport Ministers, at which Whitehall fears an onslaught from the code's supporters who are anxious to win for their own merchant fleets a greater slice of business.

On the U.S. front, European shipowners were much relieved to see the heavy defeat of the Oil Cargo Preference legislation last autumn—a move which could have had heavy repercussions in the trade protection scenario. But 1978 still holds out the threat of the Grand Jury investigation into practices by shipowner members of the transatlantic freight conferences.

This has been a slow-moving process and even with the Grand Jury now empowered and the first subpoenas issued, it will probably be six months before the Department of Justice makes its representations. In the meantime, shipowners and shippers are barred from exchanging views and information to the considerable annoyance of both sides. It was no doubt in part this lack of communication which led to the fiasco of the "Atlantic" agency's surprise charges to cover shipowners for losses sustained during last autumn's longshoremen's strike. This levy has been negotiated and re-negotiated as a result of the volume of protest from shippers.

But at least on these large-scale matters of international trade U.K. shipowners have been more or less at one with their Government. Even in the recent deliberations of the inter-government Maritime Consultative Organisation conference on tanker safety and pollution, the Department of Trade negotiators had pretty solid backing for a complex package, some of whose effects were problematic for sections of the industry. Such unanimity is far from being the case in one of the matters of most pressing concern to shipowners—the nature of Government subsidisation for shipbuilding.

About \$300m. was spent on such subsidisation within the EEC alone last year and shipowners are watching anxiously to see whether the Brussels Commission can produce an effective formula to get shipbuilders to reduce their capacity. Viscount Davidson, the EEC Industry Commissioner, has declared his favoured target to be a cut of 46 per cent. in overall capacity by 1980, but Britain has been among those vigorously resisting such a programme.

As shipowners see it, the policy of grants and cheap credit for ships as exemplified in British Shipbuilders' £115m. deal with Poland and almost complete orders for India and Vietnam, is simply encouraging

developing countries to expand their bulk and general cargo fleets rapidly at a time when virtually every sector of the market is grossly overtonnaged.

The shipbuilders' defence is that they merely feed and not create the maritime ambitions of the developing world. But whatever the power of the arguments, it is self-evident that the serious overcapacity in oil tankers which developed from the quadrupling of oil prices in 1973 has slowly spread through dry-bulk shipping into general cargo trades. Some shipowners feel that the last sector is more seriously threatened than the others because the source of the new capacity in the developing world is less responsive to the fierce market pressures which will eventually re-balance the bulk trades.

Collapses

So far, there are few signs of comfort for the shipowners and many are predicting a year of collapses among those companies exposed in the bulk shipping sector. Only the funds of the Norwegian Guarantee Institute have so far prevented widespread failures among tanker and bulk ship owners in that country and the re-scheduling of debts at the end of last year by Japans Line, one of the world's biggest voyage market tanker operators, brought a significant shiver to the Far East shipowner community, involving even the Hong Kong magnate Y. K. Pao through his extensive charter ties with Japan Line.

Within Britain it is the smaller and mainly privately owned bulk operators who are under most pressure, although one quoted company, Readson Smith, has been struggling mightily in the past year to deal with its tanker losses.

Even the liner trades, on which the success of the larger British companies has been founded, face difficulties, not only from the Russians, but from nagging port labour problems in container trades and from a serious bout of port congestion in West Africa. In the Middle East congestion has eased, but competition continues at a level too fierce for all to survive. It is in the Middle East, too, where the isolated boom in trade has fuelled a massive increase in shipping services that the old conference structures have simply failed under the strain.

Many of these problems will, of course, fade in significance as a world trade quickens, but shipowners are worried, along with Mr. Dell, that the old liberal trading days, with relative freedom from Government strait-jackets in shipping companies and detailed regulation of their rates may be gone for ever.

I.H.

When it comes to moving freight, one word says everything.

With a name like ours there isn't much doubt about some of the things we do.

Moving freight efficiently by sea has been our business for a hundred years. Today we have a million tons of shipping on sea routes around the world.

But when you send your goods by Ocean they don't always have to go by sea.

We cover freight distribution of every kind. If you're looking for efficient, cost effective, freight services, one word says everything... OCEAN.

At sea

Blue Funnel - worldwide oil, bulk and Middle Far East freight services.
Elder Dempster - West African cargo liner services.
Ocean Fleets - ship management services - warehousing and freight forwarding.
Cory Ship Towage - UK and Irish harbour towage.
Straits Steamship - S.E. Asia shipping services.

On land

Wm Cory - fuel distribution and lighterage.
Cory Distribution - High Street distribution.
Transflash McGregor - European road transport.
McGregor Cory Cargo Services - warehousing and freight forwarding.
Repcon - container/trailer repair services.
Straits Steamship - engineering and property.

In the air

McGregor Swire Air Services

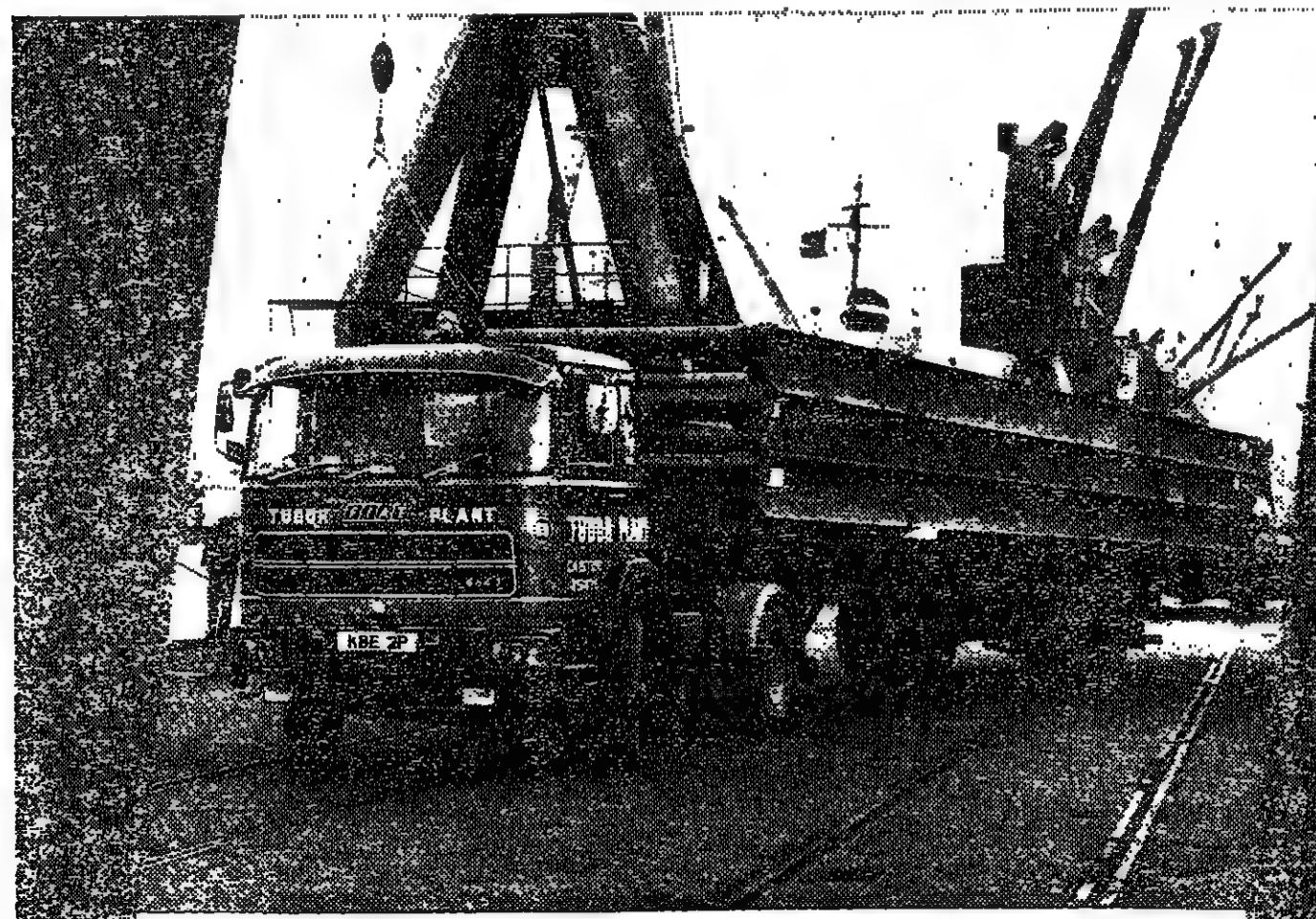
International airfreight forwarding

The wide world of

ocean

These are some of the Ocean Group companies.

Ocean Transport & Trading Limited India Buildings Liverpool L2 0RB Tel. 051-236 9292 Telex: 629236



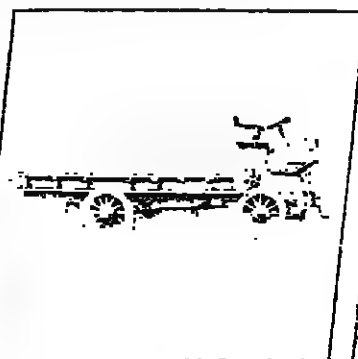
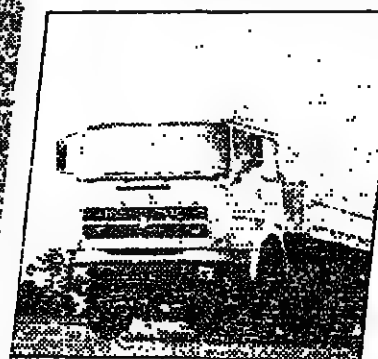
TIME AND TIDE WAIT FOR NO TRUCK

While the relentless search for oil continues day and night in the North Sea, there is a constant turning of rigging and equipment to the fields operated to strict time schedules.

Fiat plays a vital role in this service and the Fiat 684 (below) is just one of a fleet of tough, reliable Fiat's used by Tudor.

Plant to transport equipment for North Sea Oil operations to various supply vessels. The Fiat 24HP (below) of 1904 was the first of a family of Fiat Commercial Vehicles which today are manufactured, assembled and sold all over the world in countries as far apart as Argentina and Egypt, Norway and Zaire.

And Fiat are famous across five continents for technical innovation and for research into special transport problems. Today, as part of the Iveco group of companies, Fiat Commercial Vehicles offer the resources of over 3,000 sales and service dealerships throughout the world.



Better trucks make better business.

FIAT
Fiat Commercial Vehicles Limited



Worldwide surplus of bulk carriers

TANKER OWNERS, accustomed to the pressures of a deeply cyclical trade, are reluctant to label any one recession as the worst in their relatively short maritime history, but most agree that the scale of the present crisis surpasses its predecessors if only because the scale of the losses has reached such numerical heights.

A VLCC at present worldscale rates can be losing its owner anything up to £250,000 a month and although in many fleets this drain is offset by the value of time-charterers concluded when the market was higher, many of these period deals are moving close to expiry in what is now the fourth year of slump.

No one knows to where this process is leading. It could produce a number of large State-owned shipping companies for the first time in the West or it could, as indeed it already partly has, simply give governments the opportunity to pick and choose who shall be saved and who shall merge with whom. These are almost certainly choices for Norway and Japan in 1978, but less clear is the fate of the Greek independent owners, heavily reliant on an increasingly depressed dry bulk market and whose flag loyalties outside their financial homes makes them less likely to be given government props. Within Britain, which has 28m. dwt of tankers and 14m. dwt of bulk ships, many in the industry are predicting collapses of smaller, mostly privately-owned owners, but until these things happen and asset values are studied, it is impossible to say whether such companies will find buyers.

Much depends of course on the duration of the crisis, a 41.5m. dwt of oil tankers and 15.2m. dwt of dry-bulk capacity laid up, according to H. P. Drewry, at the end of January, there are small areas of the market where shipowners glimpse immediate opportunity and others where they see signs of an improvement in trading conditions.

In the crude carrier business, for example, there is a feeling that tonnage in the 70,000 to 80,000 dwt bracket will be needed in RH gaps in trades to the U.S., where there is a short-

age of deep-water ports.

But everywhere there are more factors generating uncertainty than certainty. In the product market, overcapacity of refining facilities makes future import flows difficult to predict and although President Carter's energy plan of last spring has so far had little effect, its goal of cutting U.S. oil imports to 300m. tons by 1985 is still a source of anxiety.

It was mainly the 85m-ton increase in demand by the U.S. last year, when imports totalled 430m. tons, which gave an estimated 6 per cent. lift to worldwide seaborne oil movements. Port conditions in the U.S. have also ensured an increase in employment for some smaller crude carriers which had begun to look obsolete. These vessels are increasingly used for lightening VLCCs into smaller vessels off the U.S. coast.

At least for oil tanker men, though, there is the comfort that orders for new vessels have become almost nonexistent and although the tail of new buildings contracted during the boom increased the fleet by 12m. dwt last year, 1978 deliveries may well be offset by scrapings and in 1979, unless there is a flurry of orders, the fleet may well start to shrink.

On top of this, oil tanker men are starting to accept that tonnage laid up for a period of years, even if it entered lay up in good condition, is increasingly unlikely ever to be fit for service again. Over 9m. tons of tankers were scrapped in 1977—a lower figure than for 1976—but this process could well be accelerated either by Government promotion of scrap and

Continued on next page.

FREIGHT AND TRANSPORT SYSTEMS VII

Pressures on the ports

ANDERSON recovery of the British economy from its recession has had a clear impact on the performance of its ports in recent years. The ports have had to deal with a revolution in the handling of cargo, a dramatic change in the types of ships using their facilities, and a steady increase in the volume of cargo handled. The ports have had to deal with a revolution in the handling of cargo, a dramatic change in the types of ships using their facilities, and a steady increase in the volume of cargo handled.

problems in some ports have recently been highlighted by congestion, with lines switching their cargo to other destinations. The ports have had to deal with a revolution in the handling of cargo, a dramatic change in the types of ships using their facilities, and a steady increase in the volume of cargo handled.

ld. trade slowly ex- amount of inward and outward traffic through British ports is expected to grow. According to the latest survey by the National Ports Council, the total tonnage of cargo handled in 1977 was 38m. tonnes, an increase of 1.5m. tonnes on 1976. The survey also shows that the volume of cargo handled in 1977 was 38m. tonnes, an increase of 1.5m. tonnes on 1976.

Scope

According to the National Ports Council's analysis, the total tonnage of cargo handled in 1977 was 38m. tonnes, an increase of 1.5m. tonnes on 1976. The survey also shows that the volume of cargo handled in 1977 was 38m. tonnes, an increase of 1.5m. tonnes on 1976.

FOREIGN TRADE THROUGH UK PORTS (m. tonnes)					
1974		1975		1976	
Imports	Exports	Imports	Exports	Imports	Exports
213.7	50.3	175.1	47.9	181.1	52.1
Total goods traffic					
133.3	20.0	106.7	18.9	102.6	22.5
Non-fuels					
80.3	30.4	68.4	29.0	78.5	29.6

Source: National Ports Council.

is still the short-sea and domestic routes which will take the lion's share of the total of unutilised capacity, claiming some 75 per cent. Of the unutilised capacity, some 75 per cent. is accounted for by about 80 per cent. of the cargo and there will be a gradual increase towards two-thirds by 1985.

But whatever the increases in trade in coming years the port capacity should exist in the U.K. to cope with the demand. But doubts have recently been expressed about the quality of service available in British ports, especially in comparison with some of their major Continental rivals, and shipping companies are known to be understandably concerned at the level of port charges in the U.K.

A report drawn up late last year by the National Ports Council in conjunction with the General Council of Shipping and the British Ports Association suggested for instance that the port of Antwerp could load and discharge ships almost four times faster than London. On ship turn-round times Antwerp was three and a half times faster than Hull and three times faster than Glasgow. This controversial survey covered 11 ports: Antwerp, Bremen, Hamburg and Rotterdam on the Continent, and in the U.K., London, Liverpool, Hull, Avonmouth, Tees, Glasgow and

and has been studying the practicalities of making such a comparison for a number of years. The report covers only conventional general cargo, which is a small proportion of the total tonnage of cargo now handled in major ports. It is also often handled in the older parts of a port, where there has been less emphasis on investment in new equipment.

Furthermore, the industry has pointed out that a fair comparison cannot be made because U.K. ports do not receive government subsidies, as do their Continental rivals. Other factors can also affect the performance of one port against another, such as the state of the weather, whether a port is the first or last port of call for shipping lines, as is often the case in London, and the level of wage agreements with the dock labour force.

Attempt

However, the report was compiled from material collected from the industry itself, and apparently every attempt was made to make the basis of comparison a fair one. It is felt in some quarters that the report has done little more than add official statistics to a state of affairs already known.

Major investment schemes for new port facilities have also had their share of difficulties in recent months, but at both Bristol and Southampton agreements have now been reached which should allow these projects to proceed.

At Bristol working operations have now resumed after a six-month union boycott. The dock, which is equipped to

handle container traffic and roll-on/roll-off traffic, has never commenced operations, despite the official opening by the Queen last August. It now faces an uphill battle to attract new services to the enclosed dock, the largest in the U.K., but it has already had some success, attracting the attentions of the Swedish-owned Tor Line, the Norwegian Gearbulk, and the Montreal-based container line Cast.

At Southampton a new manning agreement should mean that the way is now open for the container berths for the newly utilised South Africa trade to be brought into use. Since the start of the service last year Southampton trade for this route has had to be transhipped to continental ports.

The small scale of congestion that has occurred in some U.K. ports is minor compared to the way ports in the OPEC States and in some of the poorer developing countries have become clogged with much higher volumes of trade. At times delays reached extraordinary proportions — at Lagos, Apapa, Nigeria — as H. P. Drewry pointed out in its report on Third World port development — on some occasions in 1975 more than 400 vessels were idle, with delays for individual ships exceeding 400 days.

Recently many OPEC ports have seen the fruit of port expansion and improved management, and congestion has been substantially reduced. The rush to build new berths has even given rise to fears that there will be dangerous overcapacity developing by 1984 and moves are being made to cancel some of the more ambitious projects.

Kevin Done

Carriers

CONTINUED FROM PREVIOUS PAGE

build schemes (a policy attractive to Governments which are, for the most part, much more concerned to protect their shipbuilding industries than their shipowners) or simply by a boost for the scrap price which would occur on the hint of a pick-up in world steel trade.

Iron ore and coal for the steel industry account for half the employment of the dry bulk fleet — a fact which gives instant explanation of why these trades were in such doldrums in 1977. Grain, the third big dry bulk commodity, was livelier last year thanks to another shortfall in the Russian harvest.

Although it is at least arguable that the steel industry will start to stimulate bulk shipping by the beginning of 1979, any optimism among shipowners is quenched by the effects of new bulk tonnage coming into the market. This amounted to 12m. tons or 13 per cent. of the fleet in 1977, largely as a result of tanker orders converted into dry bulk contracts, which in 1974 seemed a better bet at least by the beginning of 1979, have now also dried up. There is, however, evidence that some of these orders are being cancelled.

One of the few bulk sectors which did offer good returns last year was the shipment of cars, chiefly from Japan, but this is a market which cannot last as deliveries of specialised car carriers come on stream. It will be even more short-lived if heavy importers like Britain are persuaded by their domestic industries to raise trade barriers.

All these factors suggest that bulk shipping markets as a whole are unlikely to be in balance before 1980/81, given that the fleet is relatively young (around 80 per cent. of vessels over 18,000 dwt aged less than ten years) and that combination

carriers which account for about 20 per cent of bulk movements are unlikely to be drawn off into other trades.

Given this surfeit of gloom, it is remarkable that shipowners are still capable of thinking about how to proceed when the tide does begin to turn. One of the most interesting questions at stake is whether tanker owners will go on building bigger vessels.

A study last year by consultants H. P. Drewry suggested that ULCCs (over 300,000 dwt) would probably have to get bigger if they were to be fully competitive with the VLCCs which will be able to travel in ballast through the enlarged Suez Canal from 1980. ULCCs frequently have to discharge at more than one port or lighten their cargo into smaller vessels, which increases costs.

Certainly Mr. Ravi Tikko seems to believe the argument. He has recently renewed his letters of intent with a U.S. yard for the building of three nuclear-powered 600,000-ton tankers. Others, though, whether nuclear power in the present environment-conscious age will ever be an acceptable solution to the problems of driving such large vessels.

This is hardly likely to be the dominant theme of 1978, however. A more likely candidate for that is talk of liquidity and the independent tanker owners' ideas for rigging the market to cut out capacity. The latest indications from Intertanko about its lay-up pool idea suggest that it has promises of 16m. dwt of vessels, almost entirely from Scandinavians. Its object is now to bring in the Greeks and then start setting floor prices for, say, 250,000 tonnes of World-scale 28 — about eight points above present levels — a measure of desperation in a desperate year.

I.H.

Filbury handles the Thames

ION in Britain's total British seaborne trade has been accompanied by a transformation in handling techniques. The new dock, London, Islands of activity amid pre-press hinterland, areas of rejuvenation, miles from the old city.

London's docks employ 3,500, 40 are employed by London Authority, modern Tilbury and cargo-handling the most obvious source arising from Britain's trading is from technical cargo-handling techniques. The Port of London is justifiably proud of its role in this industry without compulsory severance pay tribute operation of the Mr. Noel Ordman, rector of planning for the Port of London. He explains the reducing levels had been there had been unrest and that the adapting to the method and work was beginning

total British seaborne trade has been accompanied by a transformation in handling techniques. The new dock, London, Islands of activity amid pre-press hinterland, areas of rejuvenation, miles from the old city.

Officials at the Port of London Authority explain the reduction in the way freight is handled and shipped across the Channel. Approximately 80 per cent. of trade between Britain and the EEC is carried in containers. London has admirable facilities for handling containers, with Tilbury now one of the leading handling and transshipment centres in Europe.

The problem for London has been that while it has the facilities to handle millions of tonnes of container traffic each year, 80 per cent. of the container traffic bound between Britain and the EEC is carried on roll-on/roll-off ferries. This is by far the biggest factor in contributing to the fall in the proportion of British trade with the EEC which is handled through London.

The roll-on/roll-off ferries constitute a new mode of transport which has grown to dominate Anglo-European trade during the past decade. Its main advantage over other forms of container shipping is that it can give road haulage companies trading between British and European manufacturers a 24-hour maximum sea passage time. This effectively rules London out of the race, in favour of Dover and the other Channel ports.

These can offer virtually instant travel for a container full of exports. This appeals to the road haulier and his manufacturing industry customer and it appeals to the Channel ports which are excited by the expense of investing heavily in container handling equipment. For the container remains on its truck aboard the roll-on ferry.

This circumstance of geography may have robbed London of much lucrative European trade, but London itself has undeniable advantages for long-distance freight destined for the four corners of the world and the regions of Britain. London and its river has one of the most enviable hinterlands in Britain for servicing long-distance freight transport. There is an efficient motorway network within 20 miles of the river at Tilbury. This, the deep water facilities in the Thames estuary and the major market of London, encouraged world shipping lines to enter a fruitful relationship with the Port of London Authority, resulting

in the formation of the highly mechanised £60m. container port of Tilbury, now expanding on 1,087 acres. Of this, 114 are devoted to container handling berths, 80 acres to forest product handling berths, 15 acres to a bulk grain terminal and, emphasising the relatively low priority given to roll-on freight, "only" five acres for roll-on terminals.

Shift

The rest is either water, for future expansion, or general cargo, the small area for the latter again underlining the shift from old London's trading activities as a warehouse for the world to a highly specialised centre for handling bulk goods on the long-distance routes.

This change has been described as a revolution, based on a major programme of mechanisation. Containerisation is the biggest change, pioneered largely by the shipping companies rather than the ports. Next is the move to ever larger ships, up to one million tonnes drawing 95 feet of water. Even bulk cargo ships are now up to 250,000 tonnes deadweight.

An idea of the changes in efficiency as a result of this mechanisation are clear from the performance of Tilbury. This can handle ten times as much cargo as a conventional port terminal, with one-sixth of the men. On the debit side, it occupies ten times as much land and costs six times as much as a more conventional port.

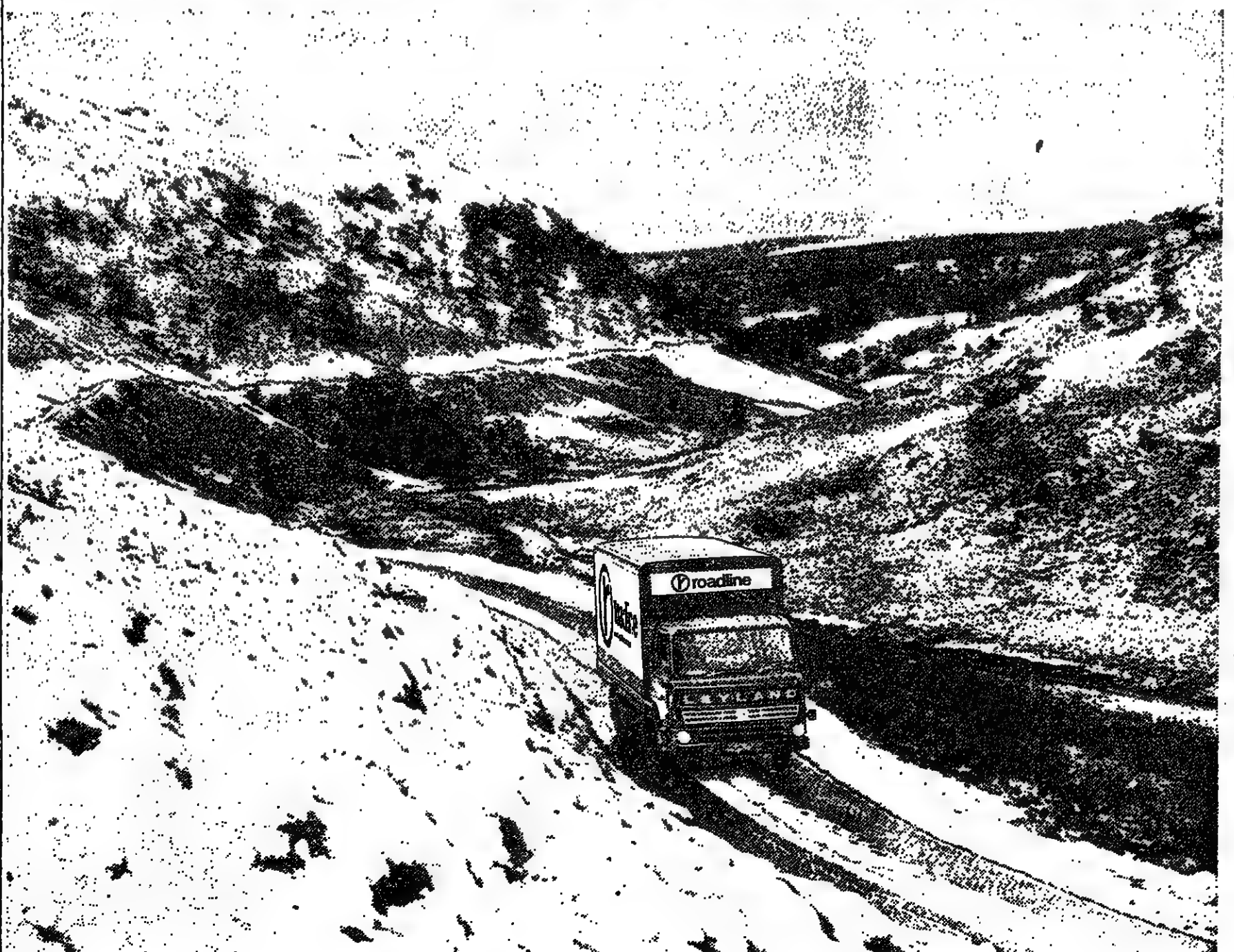
During its heyday, London's old port and riverside wharves handled at most 100,000 tonnes of cargo a year. Tilbury can handle 1m. tonnes a year. This makes it the heaviest worked container berth in Britain.

The changes have resulted in simplification and rationalisation of port layout. In the 1950s, for example, 24 timber berths and a landing dock handled 600,000 tonnes of wood a year. Now four highly mechanised terminals can handle 1.3m. tonnes.

It is small wonder then that the Port of London Authority describes the structural changes over the past decade as involving "ferocious economics," which would not have been possible but for the support of shipping lines. The £35m. new terminal to be opened at Tilbury this September, for example, will have been built with £15m. contribution from shipping lines with the PLA footing the rest of the bill.

Lynton McLain

We're not going out of our way for anyone



We don't have to because we're there already. We're Roadline. Britain's biggest road-based carrier. We've over 6,000 vehicles operating from 75 depots. Collecting and delivering to all corners of the U.K.

You'll see us in busy city streets. In remote country lanes. Even arranging deliveries in Ireland, the Channel Islands and all off-shore islands.

Our service is regular and reliable. Friendly and efficient. Fast and cost-effective.

Last year, we handled around 60 million packages. Let us handle yours. Ring Roadline on 01-586 2210, day or night. We're never far away. Wherever there's a road, there's Roadline.



roadline
moving Britain's goods

A Member Company of the National Freight Corporation

FREIGHT AND TRANSPORT SYSTEMS VIII

Policy decisions for British Rail

FOR BRITISH Rail's freight business, the big event of last year was unquestionably the decision to return to railways ownership the Freightliners container transport company founded by British Rail but controlled since 1969 by the National Freight Corporation.

This was the climax to a year which was kind to rail freight in terms of Government policy but during which the deepening recession in the steel industry once again threw British Rail's planning into error and instead of the budgeted increase in traffic, total freight carriages fell from 17.6m. tonnes in 1976 to 17.1m. tonnes. Final financial results for the year have yet to be released, but there is every indication that they will show a deficit of around half last year's £35m—a commendable improvement given the market circumstances.

Another policy change in the past year which will work in rail freight's favour is the proposed widening of the scope of grants towards the cost of private rail sidings under the terms of Section 8 of the 1974 Railways Act.

The immediate effect of provisions in the Transport Bill now before Parliament to bring into the scope of Section 8 payments towards rolling stock for use in such sidings has, inevitably, been to slow down the flow of applications until the more generous terms are available—probably by this autumn. But it has also been encouraging for British Rail to see that even within the more restrictive interpretation of section 8, a number of substantial grants have been made on broad grounds of improving rail facilities in the interests of keeping heavy loads off the road, rather than for new sidings.

The best example here was probably a £137,500 grant to Freightliners to meet part of the cost of relaying worn out crane tracks at its Stratford terminal, although under railway ownership Freightliners will be out of scope for such aid. The record so far is that section 8 grants, on which there is no overall maximum limit, have involved payments of £6.8m. and produced an additional 5m. tons of rail freight. There have also been

Promise

There were, however, two other things said about rail freight in the Transport White Paper. One was a promise of a Government backing for a rolling programme of investment in freight—a device designed to make planning and stock building programmes easier and more efficient to manage, but whose effect is limited in practice as the Government still has to give specific approvals for any capital investment over £2m. The second was a reiteration of the Government's commitment to stop subsidising freight in the form of grants to either British Rail or National Freight.

This means that British Rail has to break even on its freight

operations this year and from then on produce sufficient margins to be able to ride the cycle of industrial production even when it turns into the kind of recession Britain has had since 1971. It is a tall order for a business in which over 70 per cent. of volume and 68 per cent. of revenue comes from carrying coal, coke, iron and steel and which carries a high proportion of fixed costs which cannot be eliminated when the economic cycle turns downwards.

Mr. Frank Paterson, British Rail's chief freight manager, believes the target will be met this year, although he acknowledges that within the business there is still a fair amount of cross-subsidisation from profitable to unprofitable sectors.

He is budgeting to increase freight volume by 1.5 per cent. a year, moving to 185m. tonnes in 1983—certainly not an over-ambitious goal given that the railways carried 187m. tonnes in 1973. He says the volume forecast, which has not been met in the last two years, is based on a detailed and "Presbyterian" study of major customers' plans. Even Presbyterian caution would, however, have looked like a gamble, confidence with regard to predictions of steel output in the last two years.

White British Rail is justified in emphasising its dependence upon the performance of other heavy industries and the problems of running an inflexible, fixed costs business, there are areas where costs can be cut and operations streamlined.

In some areas, British Rail's record in the past ten years has been good. The number of wagons in the fleet is now 165,000, not much more than a third the number in 1967, and there has been an almost equal drop in the number of locomotives and terminals.

Mr. Paterson speaks of "a quiet revolution" in resource utilisation and in managing the switch from predominantly wagon-load business (69 per cent. of total in 1968) to trainload (79 per cent. of total in 1976). But even with dramatic changes like these, the uncertainty persists as to whether rail freight has moved fast enough to combat the savage competition of the lorry and whether it has been able to

take sufficient advantage of an unparalleled restraint in costs during the past three years as a result of Government policy. Labour expenses amount to 63 per cent. of rail freight's total costs and 40 per cent. of its direct costs (that is, costs specifically attributable to freight rather than in supporting the railway infrastructure as a whole).

Total staffing levels within British Rail have fallen steadily since 1974, but the target of 8,000 fewer jobs in 1977 has been missed by almost half as the National Union of Railwaymen has withdrawn co-operation on de-manning, because it says its members are being called upon to do too much overtime and rest-day working. It may be that a renewed push can be given to the de-manning programme in the context of the present round of bargaining on productivity bonuses, but British Rail still seems to be some way from agreeing with its unions an industry-wide formula for the measure and reward of productivity improvements.

Less significant in terms of the number of men involved but of considerable psychological importance for the railways manpower strategy is the

continued running battle over proper levels of footplate manning. The drivers' union, ASLEF, has now switched its campaign on this issue from the High Speed Passenger Train to the new generation of freight locomotives, the Class 56. This matter, on which the Government would not risk a confrontation in the early winter, is also on the agenda for the present pay talks.

Even the restructuring of the rail wagon fleet still has a long way to go. Given that the average resource utilisation of rail freight's competitor, the heavy lorry, is probably between 0.5 and one loaded journey per day, there is still no room for complacency in BR's wagon utilisation figures. This works out at 0.5 loaded journeys per day for the most heavily utilised merry-go-round coal wagons (the target is a 40 per cent. improvement); 0.75 loaded journeys per day for parcels wagons and 0.86 per day for Freightliner wagons. At the other extreme, the 1,300 brakeless pipe wagons manage only one round trip per 28 days. Open goods wagons make one round trip in 17 days and the core of vacuum braked vans one round trip per 14 days.

This backlog of problems

from the past is a substantial handicap in British Rail's attempt to produce a comprehensive rail strategy. It combined with problems of the present, such as the difficulty of arriving at a sensible rationalisation plan for its heavily loss-making door-to-door parcels service because of lack of Government interest in the problem of over-provision of facilities elsewhere in the state-owned parcels sector. Then, would also be resistance by unions to the loss of jobs which would be involved in such a rationalisation.

Facilities

It is possible also that the return of Freightliners will at first cause rather than solve problems. The biggest worry is that the company, which was in a ragged condition when National Freight took it over, has not been given the investment in terminal facilities needed to meet the almost trebling in volume of business in the past decade because of the cash-flow problems which have bedevilled NPC since its formation.

The outcome is that the company, now once more in the limbo of an ownership change,

does not know whether it will get the £4m. a year it conservatively estimates it needs just to replace worn-out containers, cranes and lorries. British Rail has been given no undertaking so far from the Government that there will be any contribution outside the existing freight budget for this purpose and within the break-even constraint it now faces, British Rail simply cannot afford the extra interest burden which would result from borrowing for investment in Freightliners.

In policy terms too there are doubts about the future of Freightliners. British Rail has publicly guaranteed that it will continue to be run as a separate company—a guarantee which was necessary to quell the alarm expressed by a number of Freightliners' major customers that it would lose operational flexibility, for example in balancing its use of road and rail movements, under British Rail control.

Freightliners is also keen to retain marketing independence—an independence which can only be meaningful if the company is allowed to compete for business with other divisions of rail freight. British Rail has still not expressed a firm view on

the marketing question, but on its justification for demanding the return of the organisation was the railways' need for a comprehensive marketing strategy, with Freightliners as its primary carrier of door-to-door consignments.

It is also useful to remember that over half of Freightliners' business is related to managing container movements—a situation which presents British Rail with the challenge of improving its long-neglected approach to export traffic. The appointment of a European traffic manager at the end of last year is a step in the right direction, but no one believes that the existing rail-ferry ships, with a maximum capacity of 22 wagons, are well equipped to compete in a world of modern ro-ro.

The Channel Tunnel, which BR's best hope, albeit a pricey remote one, at present, of a major boost for its European business. It is at least an acknowledgement that BR's planners have accepted that it would be best to get the tunnel on the back of existing rail links on this side of the Channel, rather than demanding a brand new high speed link.

Ian Hargreaves

Whole train consignments

IN THE past ten years, the biggest single change in the railway freight business has been the uninterrupted swing away from wagon load movements in favour of moving consignments in whole trains.

The logic of this strategy is inescapable, deriving as it does from BR's analysis of the continuous flows of heavy materials which form the bulk of its tonnage from the coal and steel industries. A 27-wagon train set linking the British Steel works at Port Talbot and Llanwern, for example, is capable of a payload of 2,025 tonnes—equivalent to 63 of the heaviest lorries permitted on British roads.

Even within the Freightliner business, which is relatively well

adapted to deal with smaller and less regular traffic flows, the most profitable kind of business is in contracted out whole trains, such as those which link the deep sea Maritime Terminal at Southampton with the main rail network.

This is secure business which carries only one major disadvantage: that almost all its overheads are fixed and not easily reduced during times of economic recession when revenue from the coal and steel industries falls. The only remedy is pricing at a level which would give BR margins large enough to carry it through the trade cycle and although the railways cannot escape blame for pricing policies in the past, they have a powerful argument in terms of the extent to which they have suffered from Government interference in this respect.

But the bulk train load part of rail freight, in spite of its overwhelming importance in terms of both volume and revenue, attracts far less attention than the 20 per cent. of wagon-load operations. This is in part because there is more to criticise in the later department and no doubt partly because it is to the wagonload business that believers in rail freight look for effective competition with the heavy lorry to turn back the trend which has given road haulage almost 70 per cent. of U.K. freight business by ton-mile.

Within British Rail, there appears to be some difference of view about how wise it is to push this road-rail argument—an argument which is certainly in poor esteem with Government. But leaving aside the worn conflicts about the extent to which rail and road freight compete on equal terms, it is fair to observe that the real extent of competition lies in the area of the 24 per cent. of U.K.

freight carried by heavy lorries on trips greater than 100 miles. Because this is an area of such intense competition, keen pricing, speed and reliability are critical. Neither of these qualities is offered by the traditional brakeless or vacuum-braked wagon, which is limited to speeds below 40 mph for the most part.

BR now has two weapons in its armoury for this business: its 16,500 air-braked wagons and the Freightliners system now in the process of being transferred back to railway ownership, having been controlled since 1969 by the National Freight Corporation.

The air-brake network will comprise 50 daily (or in most cases nightly) services by the end of this year with running speeds over 70 mph. At the end of last year, the service received, after a good deal of agonising, a new name: Speedlink—a title not long before associated with an experimental idea for re-vitalising small-consignment traffic by a new unloading method at terminals.

This earlier Speedlink was given short shrift by the Railways Board on the grounds of cost, with preference going to the more cautious air-brake wagon network which has been able over the last couple of years to prove each of its routes in turn and where a particular service has not been cost effective to quickly withdraw it. Such attitudes represent a complete transformation from the old concept of the railway as the unchangeable national network of services—a theme which still hampers progress in future planning for rail express parcels.

At the end of 1977, Speedlink had picked up 2.3m. tons of business, of which BR estimates

200,000 would otherwise have gone to road hauliers. It hopes the tonnage will be 4m. by the end of this year and 8m. by 1982, at which point its contribution begins to look significant in more than merely psychological terms. By this time, Speedlink should have a fleet of almost 5,000 wagons.

One obvious consideration now that British Rail is to re-possess Freightliners is the avoidance of wasteful competition between the two. There is certainly a degree of overlap in types of consignment—whisky for export, for instance, goes by both systems—and although such competition is not inherently bad, it raises the pressing question of priorities within a strict capital spending allowance. Speedlink's £67m. capital programme over six to seven years is £51m. more than Freightliners has received during its nine years with National Freight.

The official British Rail view is that Freightliners is able to link centres of industrial production with fast, untarred trails which are able to operate smoothly and without recourse to the hazards of delays of marshalling yards, a cause of the inefficiency of British real-time computer systems.

In addition to the Freightliner and siding to sid wagon-load traffic, British Rail also has a residue of wagonload business for which offers, in conjunction with National Carriers, collection and delivery by road.

In 1977, this involved 1.8m. tonnes of goods, mainly steel products. It accounted for 10 per cent. of the traffic passing through road-connected depots. Although customers already pay a comparatively high rate for this service, income is not adequate to meet all the associated costs, even when wagonload value is taken into account. So the policy is to gradually phase out these services and to seek new business only where it makes commercial sense—which probably means for hauls of at least 2 miles.

The bulk of the door-to-door services are, of course, parcels and in this department British Rail's intentions are still in flux. Last June's Transport White Paper specifically rejected a co-ordinated effort to losses among the rail-owned parcels carriers, but the line that it was up to companies involved in pricing action and reduce cost in order to get the business into surplus.

National Carriers has been given some special help in investment in the Transport Bill, having broken even trading terms for the first time in its history in 1977, and has another £100m. worth of returned to trading profit after losses in 1976. The other parcels carrier, the Post Office, is projecting a surplus in its parcels business in 1978, and British Rail has in the last 18 months priced ahead of its rivals, resulting in a loss of several million pounds. Red Star, the primary express service by road, can be booked on specific passenger trains, continue however, to expand, indicating how very soundly based the sector is.

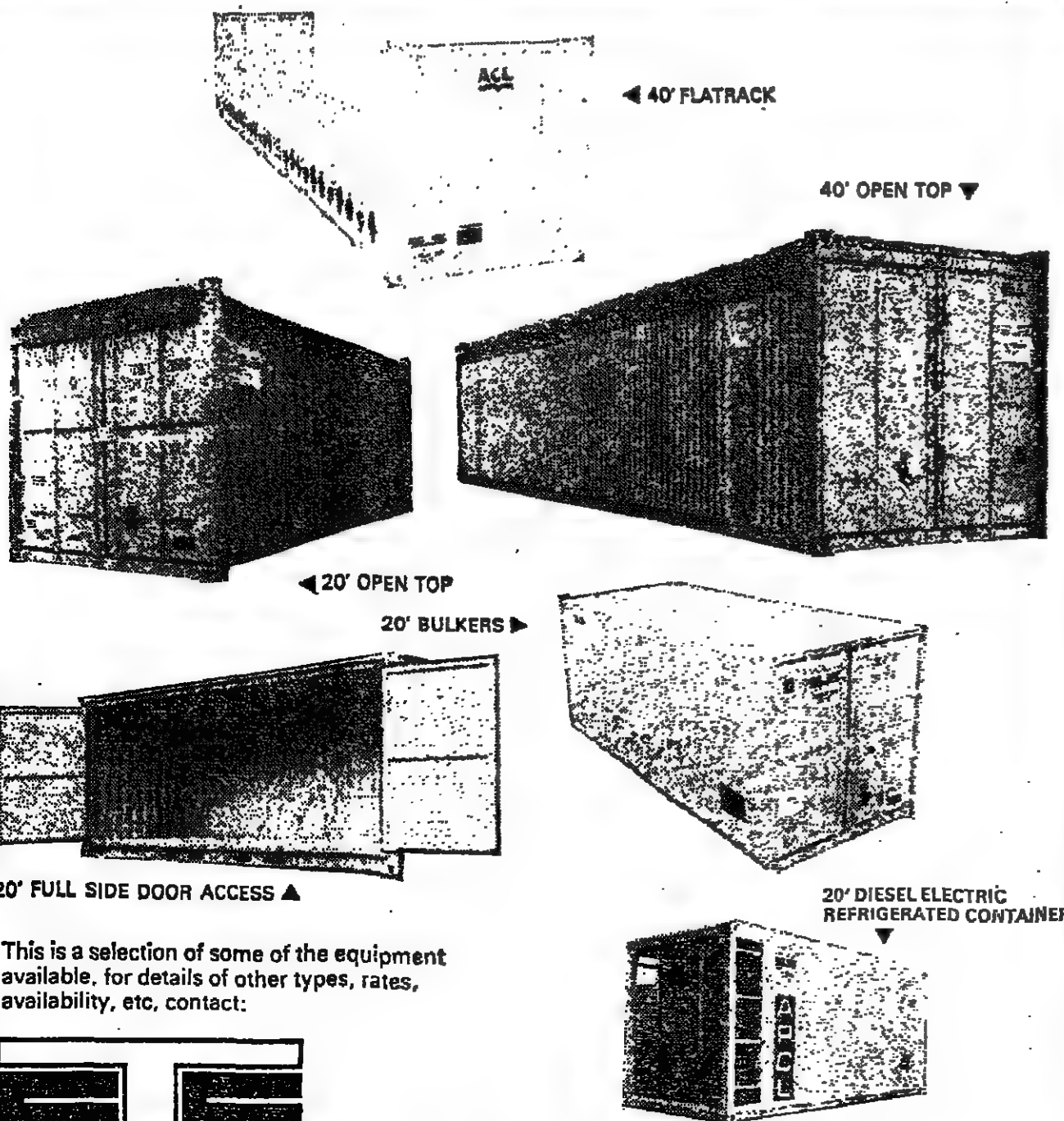
So thus far the Government strategy seems to be on course although the continuing overruns of rail parcels remain one of the many threats to the ability of British Rail to survive this year without grants to meet losses in its freight business.

Ten years ago the South African Government ordered a losses in its freight business.

CONTINUED ON NEXT PAGE

TRANSCONTAINER SERVICES
THE SPECIALISTS

In addition to its 20' and 40' standards, Transcontainer Services would like to introduce you to some lesser known members of its fleet.



This is a selection of some of the equipment available, for details of other types, rates, availability, etc, contact:

TransContainer Services Company
32 CHESHAM PLACE • LONDON SW1
Telephone 01-235 0591 Telex 916302

Containers meet problems

CONTAINERISATION is now established world-wide, and has passed through its honeymoon period. The problems have begun to multiply.

Historically, the concept has been around since the 1930s, when a U.K. Royal Commission on Transport commented that it was a matter of some surprise to its members that the advantages of containers had not become obvious to shippers. They were perhaps obvious, but the hardware was lacking.

The Americans were the first to take the risk. In 1956 an American trucking company began taking cargo by sea in containers between New York and Puerto Rico. After a nine-year gestation period, containerisation came to the transatlantic trade when Malcolm McLean's ships carried containers between New York and Europe. The container revolution had begun.

The effects have been spectacular, as Londoners well know. The complex of Thames docks which began at Tower Bridge and stretched for miles downriver—St. Catherine's, London Docks, the Royal Group, the East and West India docks—have either closed or are running at a fraction of capacity.

The high unemployment in the East End labour exchanges, and the industrial desolation along the riverside, owe much to the good idea of putting cargo into boxes.

But now the problems are not merely caused by that good idea—they are part of the trade itself. Naturally enough, these problems are inseparable from the general world-wide recession, a recession which has been particularly hard on the shipping industry and continues to be. Equally naturally, the container world has displayed some twists of its own to worry the major shipping lines, whose investment in containers is now immense.

Massive

Containerisation offers enormous economies of scale and of time. It also calls for massive investment, both in the containers themselves and in the infrastructure of the ports. Finally, container ships themselves are multi-million pound investments—the recently launched Ellerman Harrison Container Line's City of Durban came in at around £80m.

So container vessels need the work—and there are increasing signs that they are not getting

it. The City of Durban is a good case in point. Launched last September from the Bremen yard of A. G. Weser, the 48,000-ton ship is one of the largest container vessels ever built and one of the most sophisticated. It is designed to carry 20-foot containers, many of them refrigerated, stored ten across below decks. A computer monitors the refrigeration and maintains correct temperatures.

But it was built for the U.K.-South African trade (hence its size and advanced refrigeration equipment) and that trade is not what it was.

Ten years ago the South African Government ordered a losses in its freight business.

CONTINUED ON NEXT PAGE

For professional help on national haulage and northern distribution contact Arthur Wallace Operations Director Telephone 061-775 5631

PRIESTNER
A power-force in haulage
Transport division of Britannia Ltd.



FREIGHT AND TRANSPORT SYSTEMS IX

Rapid growth in air cargo

WITHOUT the world, the freight still only use it on an ad hoc basis when traditional means of surface transport are blocked by strikes—such as the U.S. ports strike of recent weeks. Far fewer shippers actively use air transport as their sole means of distribution, but the faster turnover that air transport can provide is encouraging the ad hoc users of air freight to abandon attitudes of mind built up over a lifetime will not be easy, but the future growth of air freight depends as much upon this kind of education campaign among shippers as it does on such matters as pricing.

Another factor is the need to develop a much greater number of regularly scheduled all-freight services than is the case today over a much wider spectrum of international destinations. On some routes, such as the North Atlantic, some of the present all-cargo jet services do well, but there are probably many more routes that are less competitive, but more lucrative, waiting to be exploited by the airlines.

On the ground there is undoubtedly a need for many more automated cargo terminals at major airports, like those at Heathrow, Schiphol, and Frankfurt. There are still far too many airports where cargo is still relegated to old, draughty and remote sheds, with inadequate customs facilities, and often almost no facilities for even temporary storage of any kind.

It is significant that this lack of adequate facilities is frequently to be found in the countries of the Third World, where maximum benefit could be derived from a substantial increase in the use of air cargo. But it is not difficult even in Western Europe to find cargo facilities at some airports that match the primitive arrangements found in the less developed world.

A more liberal and understanding attitude on the part of many governments would also do much to help. It is still possible to find some countries where the customs formalities are handled almost as though the incoming cargo aircraft and its crew were trying to perpetrate a crime rather than stimulate a valuable business activity. Even where more enlightened attitudes exist, the documentation that is required is tedious and time-consuming, and frequently uncomputerised, requiring considerable physical effort in preparation.

These are some of the extreme elements in the world air transport system that are mitigating against the development of air cargo, but they are sufficient to slow the prospective growth rate unnecessarily. A concerted attack by the air transport industry, on the one hand, with the assistance of those more enlightened governments of the West who can see the value of such a development,

might work wonders. As it is, however, it seems that cargo will continue to develop piecemeal, gaining strength and importance gradually, rather than achieving the swift and revolutionary breakthrough that many believe to be possible.

One breakthrough in the cargo rating structure which may go a long way towards boosting cargo development is the re-introduction by British Airways earlier this year of its low-priced contract-rate structure—a modified version of the scheme which ran for the first six months of 1977. Earlier opposition to the scheme by U.S. airlines and the U.S. Government forced British Airways to suspend the new pricing policy last June, after it had boosted business by 30 per cent. But by modifying the scheme, and submitting it to President Carter, the airline won his acceptance of it, and the over-ruling of the U.S. Civil Aeronautics Board's objections—after some of the major U.S. operators, such as Pan American, Trans World and Seaboard produced their own low-price competitive proposals.

The BA scheme offers significant reductions in rates to agents who are prepared to contract for a minimum shipment of 800 tonnes of cargo a year. Under the scheme, the cheap contract rates are 40p a kilo for containerised freight from London, Glasgow and Manchester to New York, with a 5p discount for off-peak shipments between 1800 hours on Sundays and 1400 hours on Tuesdays. Cheap contract rates are also available to Boston, Chicago, Detroit, Miami, Philadelphia and Washington. The rates are available on BA only from Britain to the U.S., and not vice-versa.

Contracts

The airline said it had devised the idea originally to stimulate trade between the two countries, and to turn unused transatlantic cargo capacity to good use. The majority of the U.K.-based freight forwarders, including some of the biggest in the business, have already signed contracts with BA, and the airline expects further deals to be signed soon. The airline is hopeful that once the success of the contract-rate scheme has proved its value on the North Atlantic, it will spread to many other parts of the world.

In addition to the scheduled airlines, which carry an immense amount of cargo in containers in the holds of regularly scheduled passenger airlines as well as in their own all-cargo aircraft, a large volume of freight to and from Britain is carried by the independent all-cargo operators, of whom the three largest are IAS Cargo Airlines, Tradewinds and Transmeridian.

Of these, the largest is IAS Cargo Airlines, founded by Mr. Alan Stocks in 1966, which now carries over 50,000 tonnes of cargo a year. From a turnover of £215,000 in 1970-71, and only one Britannia aircraft, IAS has expanded rapidly and for 1977-1978 anticipates a turnover of over £32m. and a pre-tax profit of £1m. Its current fleet includes 4 DC-8 freighter jets, three Boeing 707s, two Britannias, one CL-44, and a Hercules freighter.

Tradewinds, founded in 1968, has also developed rapidly in recent years, and now has a fleet of two Boeing 707s, four turboprop CL-44s and a Bell Jet Ranger helicopter. Although still handling some single-entry work on specific contracts, the emphasis at Tradewinds is on split charter work to the Middle East, and to West and Central African markets. Earlier this year, it was announced that the Lomro group was planning to acquire Tradewinds. New routes include a proposed U.K.-Latin American service and an extension into Far Eastern markets.

Transmeridian was founded by Mr. T. D. (Mike) Keegan over 16 years ago, and also specialised in long-haul cargo work to the Middle East, Far East and

grown to eight swing-tail CL-44s, and in 1977 the Transmeridian group moved into jets, with the introduction of two DC-8 freighters.

In mid-1977, it was announced that Cunard Steamship Company, a subsidiary of Trafalgar House, had acquired the entire issued share capital of the Transmeridian Group for £3.87m. At that time it was stated that a pre-tax profit of £1m. for the Transmeridian group for the year was anticipated. Trafalgar House said the deal would complement Cunard's existing sea cargo operations at a time when the world-wide volume of cargo being carried by air was rising rapidly.


Earlier this year the U.K. Civil Aviation Authority announced new regulations for air cargo carried by aircraft operated by British airlines, designed primarily to make life a little easier for the independent operators. Just how these new regulations will work out in practice remains to be seen, but they appear to be a step towards that even greater liberalisation which the air freight market needs world-wide if it is really to achieve the breakthrough nearly everyone engaged in this section of the air transport industry believes to be ultimately achievable.

Michael Donne
Aerospace Correspondent

Problem: transporting granular or powdered materials. Solution: 'W' Ribbons.

One trip Lofift and Safex cargo slings Load and pre-sling bagged cargoes quickly and efficiently. Locking action of the slings overcomes problems of re-assembly. Load unites for the duration of its journey.

Lofift flexible semi-bulk containers. Sizes range from the 1 cubic metre bag, capable of carrying 1 tonne, upwards. Easy to fill, stack and discharge. Immensely strong outer wall. Four lifting loops make handling by fork lift truck or crane simple.



To: Captain P. Dymond, 'W' Ribbons Limited, 12 Commerce Way, Purley Way, Croydon CR9 4HH. Tel: 01-688 6032 I have transporting problem. Please send me full details of your range of cargo slings and semi-bulk containers.

NAME _____
COMPANY _____
ADDRESS _____
W' Ribbons Limited

Containers

CONTINUED FROM PREVIOUS PAGE

report on the future pattern of its sea trade. The report, published two years later, said that the trade should be containerised with all possible speed. There was a long pause while the expense of the move was considered. Then, in 1974, the South African Government and the European South Africa Conference, the regulatory agency which establishes freight rates for the route, signed an agreement to go container by 1978.

But the intervening period has not been kind to the planners. The 5m. tonnes of trade in 1974 has not gone up to 6m. or 7m. as had been forecast. Instead, it is expected to slump to around 3m. by the end of this year. The nine ships commissioned by the conference lines—of which the City of Durban was the first—represented over-capacity.

A lucky accident has reduced that number to eight—but on the present estimated tonnage it is still too many. As the lines replace the 80-odd conventional cargo ships which presently ply the trade, they will find competition for orders increasingly tough.

Commenting on the state of trade in his speech at the City of Durban's launch, Ellerman-Harrison's chairman, Mr. D. F. Martin-Jenkins said: "There is no doubt... that since we

placed the order there has been, for political reasons, a considerable falling-off in the normal level of trade between Britain, Europe and South Africa. I believe this will be of short duration only, and that the basic strengths of South Africa in natural resources, so many of which are badly needed by the developing world, are bound to move in increasing quantities during the lifetime of the City of Durban.

Mr. Martin-Jenkins' speech was an optimistic gloss upon the situation. The "political reasons" which have caused a fall in the trade have, if anything, become more urgent, and look like continuing to do so.

A second major worry for the established container lines is the rapidly increasing strength of the Soviet Union in container transport. A \$27m. plant for the manufacturer of containers in Abakan, Siberia, supplied by the Japanese firm of Kawasaki, is now nearly complete. The plant will have an annual capacity of around 40,000 units, and will make the Soviet Union self-sufficient once it comes on stream later this year. Last year the USSR's first container plant at Odessa was opened, with a capacity of 5,000 units a year.

Already Soviet shipping prices are often considerably beneath those offered by other

container lines, not only in the Far East but also on the transatlantic routes. The shipping prices are complemented by similarly low prices being offered on the Trans-Siberian railway.

This rapid plunge into the market by the Soviet Union has, ironically, threatened the growing predominance in the supply of containers by Japan itself. The Japanese container manufacturers see the Abakan plant as a threat not just to their own exports to the Soviet Union, but also to their other large export markets in Singapore, Hong Kong and Nigeria.

Antidote

The Middle East over the past few years has provided something of an antidote to the general gloom. Container trade there has gone through an entirely untypical boom—now beginning to taper off—and Cunard Steamships has invested around \$25m. in its aptly-named CAMEL line—Cunard Arabian Middle East Line. The £25m. investment will be spent on building up a new Arab road haulage operation linked to an expanded container shipping service to Saudi Arabia.

Elsewhere, and less spectacularly, investment in containerisation still proceeds. At Felix-

stowe, capacity is being expanded by 60 per cent, with the aid of £2m. investment. The port's throughput has increased steadily from 1967, when container facilities were first installed: the present capacity is just under 250,000 TEU (20-ton equivalent units, the standard small container size) per year. By 1981, the port hopes to be handling around 350,000 TEU annually. Southampton, too, which will handle the South African container trade, has been substantially re-equipped.

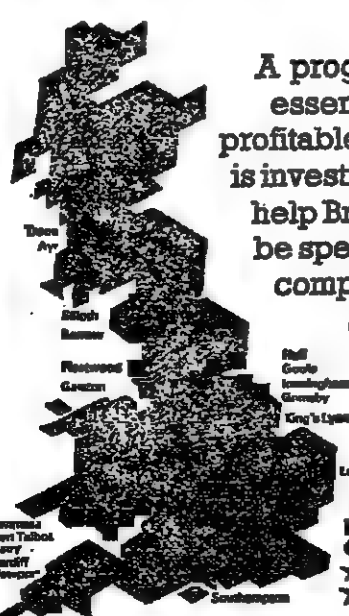
However, U.K. ports still lag in the world containerisation league. The latest figures (for 1976), published by Containerisation International, shows the top four ports with over 1m. TEU annually to be New York (1,720,000), Kobe (1,245,491), Rotterdam (1,224,725) and Hong Kong (1,029,059).

London comes in 19th place with 317,148, while Southampton stands at 254,077. Felixstowe at 235,084 and Harwich at 151,744. In Europe, the largest TEU growth last year was achieved by Le Havre, Hamburg and Leghorn.

A final note of perspective; it should be remembered that containerisation still has a long way to go. Around 90 per cent of tonnage is still carried by the conventional cargo ships.

John Lloyd

We're investing in Britain's future



A programme of sound commercial investment is essential to keep Britain's ports competitive and profitable. That's why the British Transport Docks Board is investing millions of pounds every year in its ports to help Britain's overseas trade. Much of this money will be spent on specialised new berths—like the one just completed at Southampton for the United Kingdom-South Africa container trade. The rest is being used for improving facilities and installing new equipment in South Wales, on the Humber, and at other Docks Board ports. In a highly competitive market, the Docks Board has succeeded in increasing its share of trade, and today its nineteen ports handle

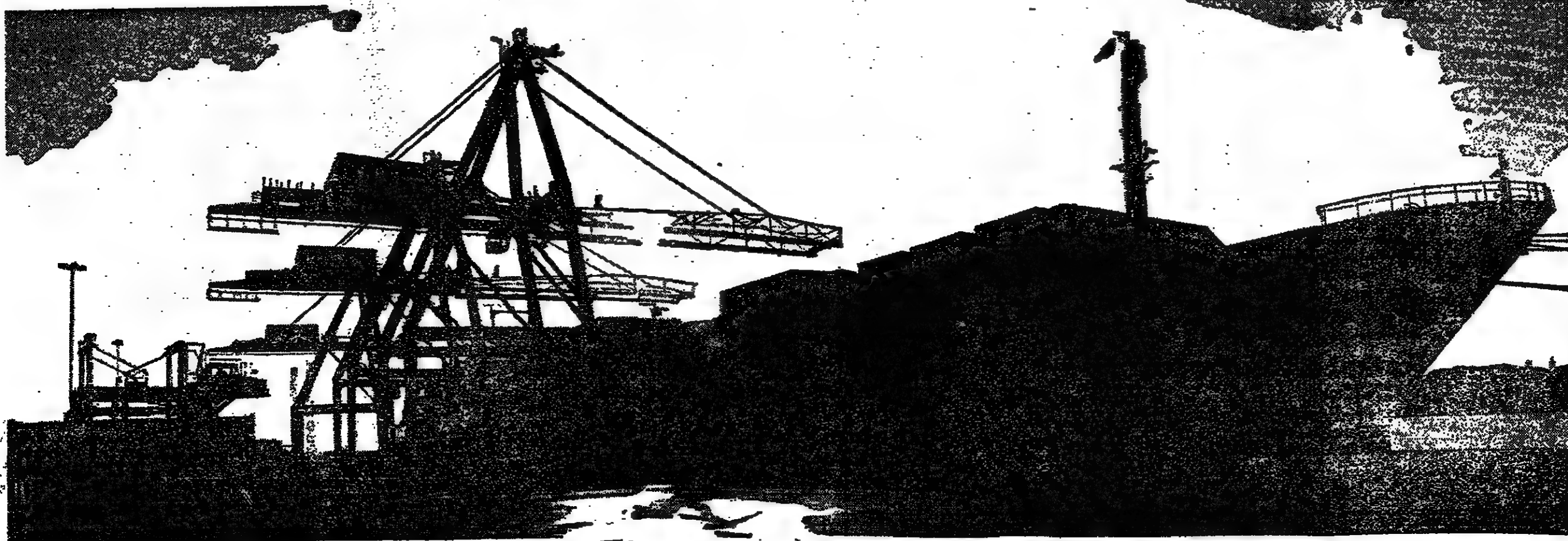
one quarter of Britain's seaborne traffic. At the same time the Board is generating the cash flow necessary to finance its investment programme from its own operations, without recourse to borrowing. Over the last few years the Board has steadily increased its profitability, achieving a return on capital of 15.5 per cent in 1976.

British Transport Docks Board

'Profitably serving the nation'

Melbury House, Melbury Terrace, London NW1 6JY
Telephone: 01-486 6621 Telex: 23913

Container operations at Southampton



FREIGHT AND TRANSPORT SYSTEMS X

Major airline plans

THE PATTERN of changes in technology to cope with the airlines' growing air freight activities is revealed dramatically in current plans from British airlines.

The plans may not have an immediate impact on the industries serving the world airlines, as much of the technology required for growth already exists. Instead, the expansion is likely to be handled through growing numbers of existing aircraft, and increasing attention to modifications in older aircraft. More computer equipment, however, is on the way.

Centre-piece of British Caledonian's film cargo equipment programme, announced last autumn, is a £250,000 semi-automatic mechanical handling system which will be fully operational by this autumn. The system will handle freight through specialised storage and transport equipment. The equipment will be used to equip the new cargo centre under construction by the British Airports Authority at Gatwick, and able to handle 130,000 tonnes of cargo each year. The system could be expanded to handle 500,000 tonnes and next year is expected to have a capacity of 200,000 tonnes.

The British Caledonian system will provide a means of moving all cargo, including igloos, pallets and containers in and out of B.Cal's new freight

facility, with a minimum of man-handling. The system has been designed and produced by Masters Air Cargo.

In the case of British Airways, the airline is entering a period of major change, when the long-awaited rationalisation of its long-haul and short-haul operations may be accomplished using new and as yet unnamed aircraft. The future of the airline's cargo operations, and the rate at which it can be expanded, depends to a large extent on the outcome of these deliberations about new aircraft.

Crucial

Allied to these future multi-million pound purchases of new aircraft is the much more concrete decision for complete computerisation of British Airways' cargo operations by the early 1980s. This scheme, known as BASO, will have a crucial impact on the profitability and efficiency of cargo operations.

Other airlines are known to be working on similar projects, designed to simplify cargo handling, paper work, and in some cases to eliminate much of it altogether. In most cases of airlines operating out of London's Heathrow airport, the move to a more comprehensive computer-based cargo handling system will be linked with changes in Customs clearance

procedure. Her Majesty's Customs and Excise is planning a central computer for all cargo into and out of Heathrow. This is the HMC80 computer project, also destined to go into full operation in the 1980s.

This computer, the British Airways BASO system and the other airlines' equivalents will interface with the ACP80 'switch' junction. The completed systems have been necessitated by the forthcoming withdrawal of the National Data Processing Centre's LACE computer at Harmondsworth used for processing customs clearance for imports arriving by air. This is now used by all airlines operating into Heathrow Airport—London.

For exports, British Airways now uses its BACCHUS computer at the Heathrow cargo centre. The computer's function of matching consignments to available space on board aircraft will also be transferred to the BASO central computer.

There is no doubt that these computers will be designed from the outset to handle a vastly greater volume of international air cargo expected in the 1980s.

An idea of the expected increases may be given from figures published by the International Air Transport Authority. Over the period 1976-1981, the growth in world air cargo is expected to increase by an

average of 11.6 per cent, a higher rate of growth than for airline passengers.

The most rapid growth is likely to be in the trade between Europe and the South Pacific regions, while there will probably be a continued healthy performance in trade between Europe and central and southern Africa.

Forecast

Moderate growth rates may be expected on the routes across the North Atlantic, with an average annual increase of 3.7 per cent, forecast. A slightly higher rate of growth is expected in eastbound trade from the U.S.

In terms of tonnage, Europe dominated by West Africa—was Britain's biggest air cargo export customer, with 8,000 tonnes per month flown out. Next was the African market, dominated by West Africa—a total of 3,300 tonnes a month were exported on average last year. Approximately 1,400 tonnes a month went to the Middle East from Britain, making it the third most important air cargo market, followed by the U.S., which received 3,300 tonnes a month. The Far East received 1,400 tonnes a month and Canada and Australia each took below 1,400 tonnes.

To cope with this current and anticipated demand, British Airways is investing steadily in

ground equipment. Plans already announced call for the spending of £90,000 over the next year, on 99 new complete igloo-shaped type 149 cargo packages. These are shaped to fit snugly inside the fuselage profile of a modern jet transport.

With no immediate plans to invest in cargo-only aircraft, most of the other capital spending will be devoted to ancillary freight handling equipment or on modifying existing Boeing 707 aircraft to accept a greater proportion of freight. Work on these is already under way, but involves no new technology.

The uncertainties within BA and other airlines over their pressing needs for replacement aircraft for an introduction into service in the middle to late 1980s has to an extent hindered long-term planning. The airline would like to take a closer look at a purpose-designed combined freight/passenger aircraft. But a decision on this must await the other and more urgent problem of finalising a decision on its new passenger aircraft fleet.

Ideally the airline would like to go ahead with the purchase of derivatives of the British Aerospace BAC 1-11, the Boeing 737, or the latest Douglas DC-9 in response to its most immediate need. In the medium-term it firmly believes it will purchase



A British Caledonian Airways Boeing 707 freighter at Houston Intercontinental Airport. The airline recently introduced a weekly Tezcargo service between London and Houston, Texas.

a wide-bodied aircraft, possibly from a European consortium, for use on short-haul European routes.

The choice of a wide-bodied aircraft on the short-haul flights to Europe in place of the existing narrow-bodied Tridents will open up even further the field of air cargo equipment. Most of this will be conventional, igloo pattern "universal loading devices," but will provide valued work for the equipment makers into the 1980s.

L.M.C.

The future for rail

RAILWAYS MAY be a declining industry in Britain and North America. The French, West German, and Japanese Governments may all be talking of cutting back on the growing bill for financial support of their rail systems. But in the world as a whole railways are a boom business.

In the 1950s and 1960s, the total volume of freight, in terms of ton-miles, moved by the world's railways grew by about 4.5 per cent a year, a rate which means that the total business being done doubled within 20 years. The rate of increase may have fallen in Western Europe and North America in the last few years of recession. But elsewhere—in Asia, the Soviet Union, Africa, the Middle East, and parts of Latin America—freight traffic has continued to grow.

It is a business, too, in which large sums are being invested in many parts of the world. According to estimates compiled by the International Railway Journal, around \$15.5bn. is likely to be spent on new track or equipment this year, by 45 of the world's railway administrations; and this figure does not take into account the sums which will be invested by some of the biggest railway systems such as those in the U.S. and the USSR.

Of this sum, about \$5.5bn. will be going on new freight cars and some \$5.5bn. will be spent on new or improved track, signalling, and electrification schemes. In Latin America, the Middle East, parts of Asia and Eastern Europe new routes are being laid specifically to carry freight. In the developing countries railways are seen as having a major role to play in the creation of a new or stronger industrial base. Road-based freight distribution systems are being improved too. But where the distances are long, the loads to be carried are heavy, and the flows of traffic are likely to be substantial, then there is a place for railway construction and modernisation.

Longer

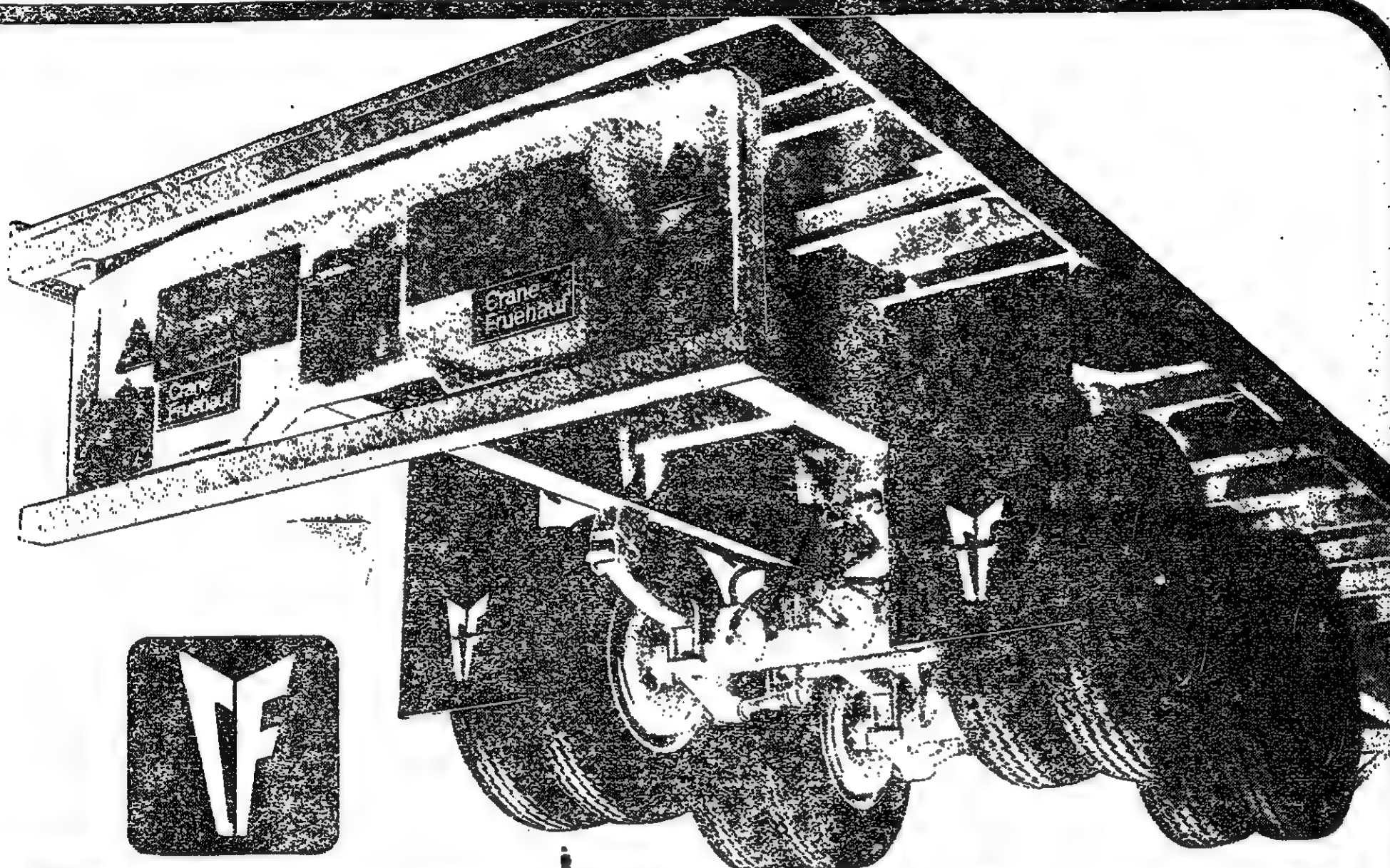
In the industrialised countries, where railways were established a century or more ago, money is being spent to improve freight handling systems. In the U.S. and the USSR where distances are long, in West Germany and France where average rail hauls are a good deal longer than in this country and where a very high proportion of rail traffic moves to or from (or both) private rail sidings, and in similar circumstances elsewhere, the advantages of rail in moving thick regular flows of traffic come into their own. Improvements in track, signalling, rolling stock, and motive power and the adoption of automatic data processing techniques for controlling freight and freight wagon movement—such as TOPS in Britain and GCTM in France—are raising the speed and reliability of full train load traffic and are helping to rationalise what in Britain is called wagon load traffic.

As one would expect, geography sees that rail freight is more dominant in inland transport than in international freight movement. But it is a much more dominant inland carrier in the world at large than might be generally assumed in Britain where rail's share of the market has been falling steadily over the years. According to a recent study by the Transport and Road Research Laboratory, probably about 70 per cent of all inland freight movements—as measured in ton-miles—in the world is by rail. This figure may be boosted by the very large quantities of freight which are moved by rail in the USSR—some 3,700m. ton-kilometres a year or about half the world

total—and in North America, which accounts for a further quarter of the world total. In every other continent, except Western Europe and Spain, rail still carries more freight than road transport.

Nonetheless, rail remains a major international freight carrier between countries with extensive land frontiers, such as in Western Europe and Latin America (where a new agreement has recently been signed to simplify cross-frontier freight procedures). In France and West Germany, for example, more international freight traffic goes by rail than by either inland waterway or road.

C



Crane Fruehauf

Britain's Finest Trailers and Demountable Systems

Trailers

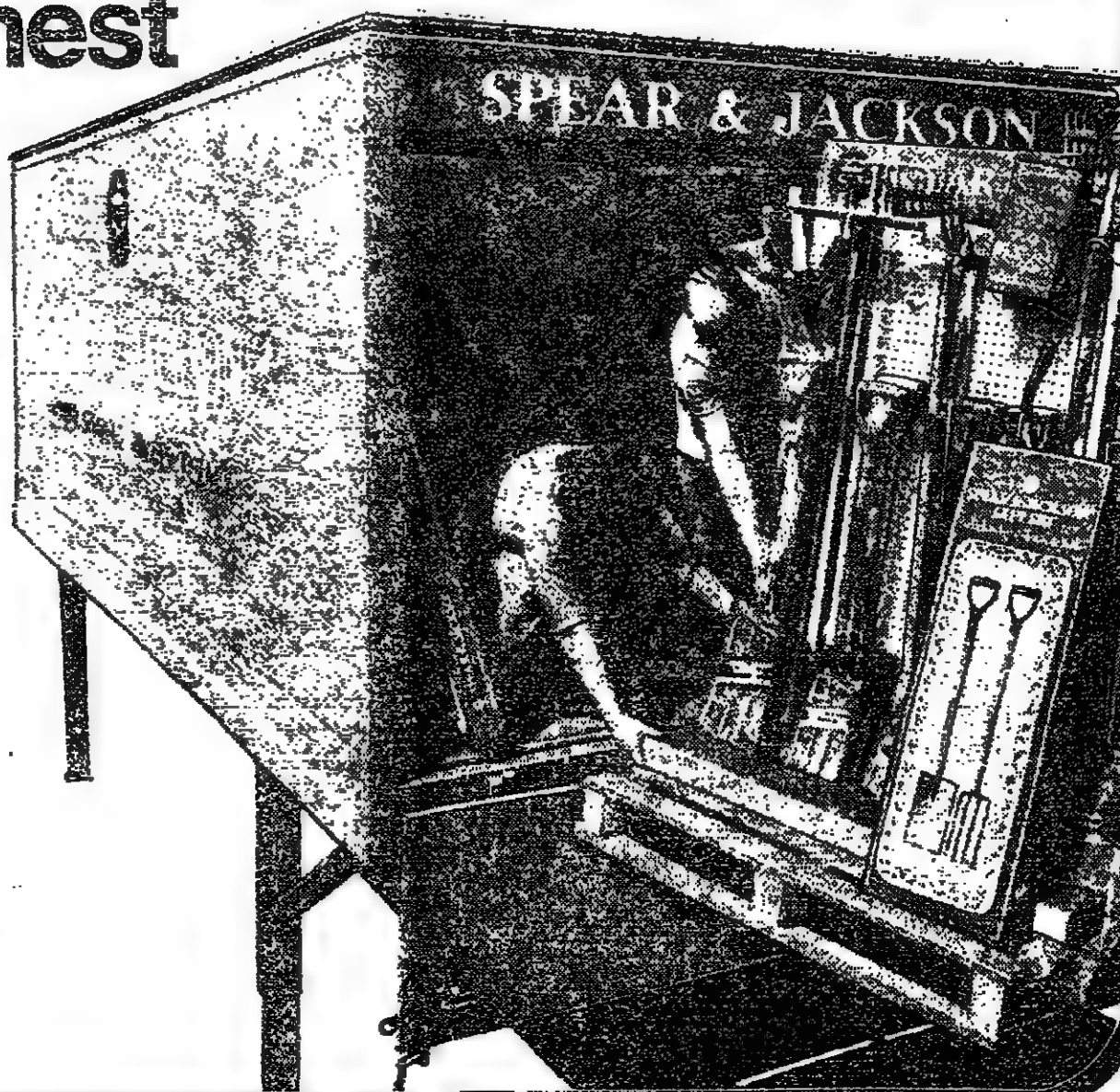
For the best Trailers

Crane Fruehauf Trailers Limited,
Marketing Services Department, Toftwood,
Dereham, Norfolk.
Tel: 0362-3331 Telex 97251

Rigids

For the best demountable systems

Crane Fruehauf Rigids Limited
Bentalls, Basildon, Essex.
Tel: 0268-3151 Telex: 995138



سكان من الناحية

FT SURVEY OF CONSUMER CONFIDENCE

Consumers feel more cautious about future

BY ELINOR GOODMAN, CONSUMER AFFAIRS CORRESPONDENT

A SLIGHTLY more cautious view of the future is reflected in the latest survey of consumer confidence carried out for the Financial Times.

After the exceptionally confident feelings shown in January, consumers were feeling less optimistic at the beginning of this month. But people are feeling more secure than a year ago, and the long-term trend is still improving.

In January, two of the main indices reached new heights. This month they have slipped back slightly and worries about unemployment have increased.

The survey is designed to find out how people feel about the future and their present financial position.

Movements in the indices usually take three to four months to be reflected in buying patterns. The six-month moving average figures used in the table are a better guide to long-term trends than the monthly figures which, as this month's figures show, can fluctuate widely.

The month's improvement was most noticeable in the Past Prosperity Index which tries to establish whether people feel better or worse off than a year ago. January was only the second month in seven years in which the number of people feeling better off outnumbered those feeling worse off. This month, however, the feeling worse off were again in the majority.

Inflation

Just over one-third of the sample said they were less affluent than a year ago and 27 per cent said they were better off. This gave a balance of 8 per cent, who felt their incomes had not kept pace with inflation.

Among the professionals, those feeling worse off was slightly smaller at 3 per cent, but this was still a deterioration on January.

Of all the categories, women from working class backgrounds were feeling worst off.

The six-month moving average figures for Past Prosperity are still improving, however, as people were feeling much more badly hit by inflation seven months ago.

The Future Confidence Index also reached a new height last month. This month it has fallen back sharply though it is still well above last February's level.

Asked whether they expected conditions to get worse or better over the next year, 36 per cent said better and 22 per cent worse, giving a balance of 7 per cent, who thought things would improve. This is slightly lower than the December figure.

This gloomy view of the future was expressed by all types of

people interviewed. Professional men remain more confident than other categories, with optimism outnumbering pessimism by 31 per cent. Working class women were most pessimistic again this month with pessimists outweighing optimists by 4 per cent.

The six-month moving average figures remained at about last month's level. On this longer term basis, there is a balance of 16 per cent expecting things to improve.

The most commonly cited cause of pessimism was the fact that things must improve. This was followed closely by North Sea oil while the Government was mentioned more often last month.

Slightly fewer people than last month attributed their optimism to the view that inflation was under control while there was a marked drop in the proportion of those who thought that exports were going to help improve prospects over the next year.

Among pessimists, rising prices continued to be the main source of concern, although an increasing proportion held the more general view that the "trend is to get worse." Concern about strikes and the Government continued to fall.

The number of people expecting employment to increase also rose this month. Almost a quarter more of the respondents thought unemployment would get worse than those who thought it would get better.

This was an increase of 11 per cent on last month and was most noticeable in the North-east and Scotland where those expecting unemployment to rise outnumbered by 44 per cent those expecting it to fall.

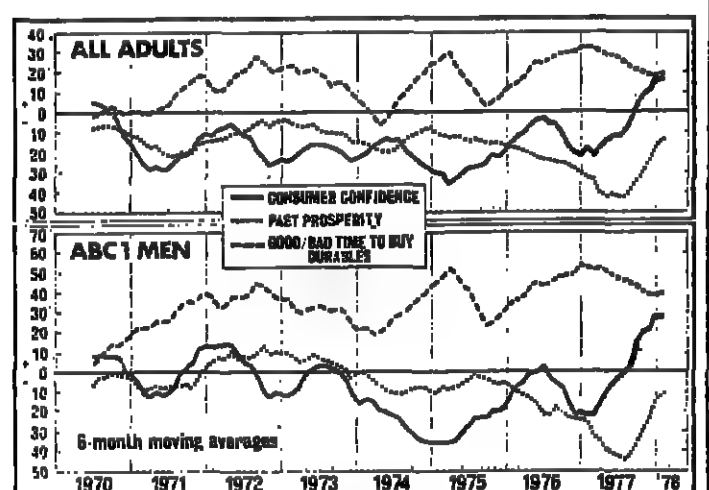
Price rises

One of the questions the survey asks each month is whether people think it is a good time to buy major things for the house.

Throughout the early part of last year, this index was standing at a very high level, tending to the view that the opposite direction to the trend in inflation, as one of the main reasons for saying it is a good time to buy consumer durables has been that prices are bound to rise.

This month, the Time to Buy Index fell back to show a positive balance of 22 per cent in favour of buying now. Professional men were even more enthusiastic about the advisability of buying now than they were last month. Those in favour of buying outnumbered those against by 46 per cent on a monthly basis and by 44 per cent on the six-month moving average basis.

The survey was carried out by the British Market Research Bureau. A total of 1,026 adults were interviewed between February 2 and 8.



Price Commission seeks industrialist

THE DEPARTMENT of Prices has approached a tentative offer of its several industrialists to see if they would be prepared to fill the vacancy on the Price Commission created by the impending departure of one of three deputy chairmen, Dr. Gordon Hobday.

Dr. Hobday, the chairman of Boots, has told the department that he wants to leave the Commission because the job—theoretically a part-time appointment—is too time-consuming to fit in with his other commitments.

Given the discretionary nature of the Commission's powers, its make-up is regarded by industry as crucial to the way the controls are implemented.

The original appointments, announced last summer, gave the Commission a fair balance of industrialists, university and consumers, with the chairman, Mr. Charles Williams, coming from banking. The two other deputy chairmen are Mr. John Hughes, from Ruskin College, Oxford, and Mr. S. Sweetman, from Unilever.

PLAXTONS

Luxury Coach Body Builders

A Year of Progress

Results for the period ended 2nd October 1977

	1977 (57 weeks) £000's	1976 (52 weeks) £000's
Turnover	17,368	12,533
Profit before tax	1,637	933
Profit after tax	769	449
Earnings per share	26.0p	15.2p
Dividends per share	7.8p	6.5p

- ★ Turnover increased by 26% with pre-tax profits up 60% on an annualised basis.
- ★ Exports up from £470,509 to £1,040,209.
- ★ Capitalisation issue creates trustee status.
- ★ Current year started with a full supply of work in all divisions.

PLAXTONS (SCARBOROUGH) LIMITED
Castle Works, Seamer Road, Scarborough YO12 4DQ.

TREND OF INDUSTRIAL PROFITS

Rise of 43% in earnings on tax charge stability

THE TREND of industrial profit figures below is based on accounting periods ending in late spring and early summer, so the sample of 223 companies is small and the figures should be interpreted with caution.

Given that provision, one of the more striking features is the way that the stability of the tax charge boosted earnings. While pre-tax profits rose 22 per cent, the tax charge only rose 4 per cent. Consequently, earnings made a 43 per cent leap.

At its extreme, this trend was exemplified by the contracting and construction sector where a fall in pre-tax profits was translated into a rise in earnings by the dramatic drop in taxation.

The only other two sectors with enough results to be at all reliable were clothing and footwear and engineering. The clothing and footwear sector performed particularly strongly, having a 36 per cent jump in trading profits which came through, after only a small increase in tax, to a doubling of earnings. Engineering, however, generated a gain at the trading level of only 2 per cent, and the earnings improvement was of the same order.

The cash flow for all the industrial companies showed a substantial improvement of 34 per cent, and this was reflected in a 21 per cent rise in net current assets. But net capital employed rose more sedately at 14 per cent.

TREND OF INDUSTRIAL PROFITS ANALYSIS OF 223 COMPANIES

The Financial Times gives below the table of company profit and balance-sheet analysis. This covers the results (with the preceding year's comparison in brackets) of 223 companies whose account year ended in the period between April 18, 1977, and July 14, 1977, which published their reports up to the end of January, 1978. (Figures in £000.)

INDUSTRY	No. of Cos.	Trading Profits	Profit before Int. & Tax	Pre-Tax Profit	Tax	Earnings	Ord. Dividends	Cash Flow	Net Capital Employed	Net Current Assets
		(£)	(£)	(£)	(£)	(£)	(£)	(£)	(£)	(£)
BUILDING MATERIALS	4	22,343	22,463	20,202	7,014	12,962	142.0	8,497	12,995	105,228
CONTRACTING & CONSTRUCTION	17	21,473	24,668	18,097	6,705	12,674	28.4	4,256	13,524	150,388
ELECTRICALS & ELECTRONICS	7	8,054	6,557	6,104	2,937	3,277	29.0	1,542	2,634	34,221
ENGINEERING	21	45,948	35,765	22,201	13,525	14,884	1.6	4,593	18,024	187,527
MACHINE TOOLS	1	594	515	413	213	199	13.1	52	1,158	44.3
MISC. CAPITAL GOODS	8	31,476	25,987	20,172	5,759	14,332	180.7	4,128	14,813	160,991
TOTAL CAPITAL GOODS	58	149,594	110,053	97,186	37,559	59,334	50.0	25,078	60,231	659,573
ELECTRONICS	6	17,519	9,244	7,489	2,253	5,091	148.5	1,402	11,496	41,004
RADIO & TV	1	15,556	9,244	7,489	2,253	5,091	148.5	1,402	11,496	41,004
HOUSEHOLD GOODS	10	15,090	9,487	8,043	5,576	4,418	1.8	1,237	6,988	62,235
MOTOR VEHICLES & COMPONENTS	3	11,961	8,976	5,775	3,491	5,219	32.0	1,036	4,491	44,181
MOTOR DISTRIBUTORS	1	—	—	—	—	—	—	—	—	—
TOTAL CONSUMER DURABLES	18	41,880	27,407	22,229	9,480	12,798	48.5	5,575	21,995	147,480
BEVERAGES	3	56,337	47,066	43,595	21,420	20,309	23.4	9,303	19,553	509,585
DISTILLERS & WINES	2	3,928	2,706	2,884	1,082	1,011	—	11.5	1,027	18,829
HOTELS & CATERING	2	2,272	1,801	1,358	854	719	46.2	188	757	9,012
CRISPER	7	13,876	9,709	7,063	37,818	33,588	28.6	10,593	44,381	232,146
FOOD MANUFACTURING	7	34,781	29,421	25,083	11,931	12,887	35.2	4,058	18,998	150,517
FOOD RETAILING	8	59,394	48,883	45,807	19,129	27,494	104.2	5,177	31,570	127,563
NEWSPAPERS & PUBLISHERS	3	4,884	3,193	2,882	1,177	1,797	90.7	847	2,258	14,083
PACKAGING AND PAPER	3	6,485	3,897	3,324	2,750	2,404	41.5	443	2,908	13,421
TOYS AND GAMES	1	4,791	3,968	3,508	365	3,650	150.0	443	5,263	17,597
TOTAL CONSUMER NON-DURABLES	72	284,775	216,429	188,444	102,674	124,807	48.5	38,707	138,264	1,174,783
PHARMACEUTICALS	4	112,448	100,004	91,718	45,128	45,090	23.4	9,135	47,511	570,910
OFFICE EQUIPMENT	1	6,586	6,819	6,520	3,398	5,053	80.0	920	2,920	15,481
SHIPPING	1	1,537	476	1,111	199	912	18.1	175	280	98,942
MISC. INDUSTRIAL	12	46,611	35,242	25,436	12,448	11,782	57.5	3,559	17,966	144,544
TOTAL INDUSTRIALS	165	694,419	562,498	482,139	217,492	265,432	42.9	76,498	208,137	2,506,990
ALL	223	1,180,003	978,527	869,623	420,166	449,195	32.1	104,575	378,418	4,382,701
BANKS	—	—	—	—	—	—	—	—	—	—
DISCOUNT HOUSES	4	20,881	24,450	20,488	7,904	12,088	25.5	12,720	9,446	52,470
FIN. PURCHASE	1	122,170	112,070	12,200	5,300	5,700	—	—	13,903	130.6
RESEARCH	—	—	—	—	—	—	—	—	—	—
SECURITIES BROKERS	—	—	—	—	—	—	—	—	—	—
INVESTMENT TRUSTS	30	28,798	28,413	24,120	8,321	15,166	25.5	12,720	9,446	52,470
PROPERTY	11	12,917	17,004	7,788	3,448	4,347	33.5	3,704	1,587	200,798
MISC. FINANCIAL	8	11,512	9,714	8,318	2,770	3,224	99.5	2,208	1,897	160,580
TOTAL FINANCIAL	64	302,663	305,525	250,418	20,739	23,321	101.5	21,887	14,730	197,002
REUTERS	—	—	—	—	—	—	—	—	—	—
TELECOMS	—	—	—	—	—	—	—	—	—	—
UTILITIES	—	—	—	—	—	—	—	—	—	—
MISCELLANEOUS	—	—	—	—	—	—	—	—	—	—
OVERSEAS TRADING	2	68,118	50,358	32,871	18,977	15,749	57.3	8,388	21,621	414,461
TOTAL COMMODITIES	2	68,118	50,358	32,871	18,977	15,749	57.3	8,388	21,621	414,461

NOTES ON COMPILATION OF THE TABLE

The classification follows closely that of the Institute and Faculty of Actuaries, which has been adopted by the Stock Exchange Daily Official List.

Col. 1 gives trading profits plus investment and other non-trading income, excluding the financial year covered. The figure is struck before charges of depreciation, amortisation and other items normally shown on the profit and loss account. Excluded are all extraordinary non-recurring items such as, for example, capital gains unless the latter arise in the ordinary transaction of business.

N.B.—Certain companies, including merchant banks, discount houses, insurance and shipping companies, are exempted from disclosing the full information required under the Companies Act, 1965.

Col. 2 gives profits before interest and tax that is to say profits after all charges except loan and other interest but before deducting taxation provisions and minority interest. In the case of banks the figure can be shown because of non-disclosure (see here-continued paragraph).

Col. 3 gives Pre-tax Profits that is to say profits after all charges including depreciation and loan interest but before deducting taxation provisions and minority interest.

Col. 4 shows all corporate taxation including Divisional and Foreign Profits and future tax provisions, but excludes adjustments relating to previous years.

Col. 5 gives the net profits accruing to equity capital after taxation.

Col. 6 gives the net profits after taxation, after all charges, including fund payments, etc. and Preference dividends.

Provisions for staff and employees' bonuses, etc., are shown in this column as a standard annual charge against net profits.

Col. 7 gives the net cost of dividend on equity capital.

Col. 8 is the capital generated internally over a year's trading. For the purpose of comparison equity dividends plus depreciation less capital generated is the recognised method of comparing this figure.

Col. 9 constitutes the total net capital employed. This is the total of net fixed assets—excluding intangibles such as goodwill—plus current assets less current liabilities, except bank overdrafts.

For merchant banks and discount houses a more realistic figure is quoted in the balance-sheet total.

Col. 10 represents the net return on capital employed. Col. 2 as a percentage of Col. 9 provides an indication of average profitability.

Excluding merchant banks, discount houses, insurance, etc.

No figures given.

Col. 11 net current assets are arrived at by the subtraction of current liabilities and provision from current assets.

Bush Hill car park

The first commuters' car park to be opened jointly by the Greater London Council and British Rail starts operating to-day at Bush Hill Park station, Enfield. It will be open for car park season ticket holders only and has space for 50 cars.

Wool trade 'losing men'

SKILLED workers in the Yorkshire wool textile industry are leaving to become postmen and dubbin men, a trade union leader claimed yesterday.

Mr Fred Towers, secretary of the Yorkshire Society of Textile Craftsmen, said in his annual report that there was a dearth of

Egg packing plant to close

FORTY workers will lose their jobs in April when the Thames Valley Egg Company's packing station at Marsham, near Norwich, closes. Production is to be concentrated on three other stations in East Anglia.

CONFERENCE CENTRES

The advertisements below appear in association with the following pages on Conference Centres

ITS ACADEMIC!



Situated in the heart of London, close to all amenities including land, rail and air termini and offering, during vacation periods, exhibition space; meeting rooms seating up to 800; catering and, in some cases, overnight accommodation in our halls of residence. What could be better than:

IMPERIAL COLLEGE CONFERENCE CENTRE

Contact the Bookings Manager for further details
Exhibition Road, London SW7 2AZ
Telephone 01-589 5111

THANK YOU TO ALL OUR SPEAKERS AND FRIENDS

European Study Conferences Limited have now been in existence for nearly four years, specialising in conferences for management and the professions. We have arranged meetings in collaboration with the following bodies, among others, during this period:

- LICENSING EXECUTIVES SOCIETY (UK)
- REWARD INSTITUTE OF PERSONNEL MANAGEMENT
- INSTITUTE OF QUALITY ASSURANCE
- SOCIETY OF OCCUPATIONAL MEDICINE (UK AND NETHERLANDS)
- CHARTERED INSTITUTE OF PATENT AGENTS
- BRITISH INSURANCE LAW ASSOCIATION
- INSTITUTE OF TRADE MARK AGENTS
- ASSOCIATION EUROPEENNE D'ETUDES JURIDIQUES ET FISCALES

Some 10,000 delegates will have benefited from your advice and experience this season alone.

Thank you again.
ESC European Study Conferences Limited
Kirby House, 31 High Street East, Uppingham, Rutland LE15 9PY Tel (057 282) 2711 Telex 342375

A QUESTION OF CONFERENCE VENUE

A problem in itself... and there are so many more besides!... Christina Campbell, the Sales and Conference Manager of this superbly situated Conference Hotel, offers a fascinating combination of solutions, each complete in itself.

Give Christina a ring at
Hotel St Nicholas
SCARBOROUGH Tel. 64107

Horses for Courses

There is a tradition of holding conferences at the seaside. When you consider the fact that the Centre for 15-2000 delegates, with a choice of 500 club, lounge, bar, and restaurant, is right there.

For our full colour brochure contact the Sales and Conference Manager of this superbly situated Conference Hotel, offers a fascinating combination of solutions, each complete in itself.
SCARBOROUGH Whitby & Filey

CORNISH CONFERENCE CENTRE NEWQUAY, CORNWALL

Fast by Motorway or Rail to the mighty Atlantic Coast.
HOTELS — BRISTOL, KILBURN, RIVIERA, GREAT WESTERN, and THE CLIFF EDGE, BLUE LAGOON CONFERENCE HALL.
Up to 300 bedrooms and 6,000 sq. ft. Full details.
Mr. R. P. Edwards-Collins
(Great Western, Newquay, Cornwall)

FINANCIAL TIMES REPORT

Monday February 20 1978

CONFERENCE CENTRES

Both internationally and domestically the conference market has shown remarkable vitality against a faltering economic background. Now the industry is thinking in terms of a renewed boom in convention business.

sing

Little doubt that a few years ago the international conference and exhibition business stood a little. There had been a slight decline as a result of a pessimistic and pessimistic mood. At the time the world economy was in a wobble. The lead conference planning is many in the business. The fact of the matter is that the industry has proved worse. Convention and traffic has kept up well in spite of the problematic environment in which the international community is at the moment. The fact of the matter is that the industry has proved worse. Convention and traffic has kept up well in spite of the problematic environment in which the international community is at the moment.

five years with a large amount of trading down for such occasions as annual dinners and wedding receptions. Thus, although the conference business itself has held up reasonably well, there is many a banquet/conference manager who would prefer overall business to be a little brisker. The buoyancy of the conference market itself is not difficult to analyse, with hindsight. The need for communication at a personal level is still the driving factor. In most industries and other activities, from engineering to medicine, social services to oil exploration, senior executives and particularly those involved in problem solving and innovation have an increasing need for a cross fertilisation of ideas. Although electronic and printed information is supplied in abundance, this is not sufficient to make personal exchanges of views and ideas redundant. The importance of a conference is not only what is said from the platform, but the total atmosphere of the event and the stimulation that is provided as a result.

No one would doubt, nonetheless, that conferences and incentive travel are increasingly overlapping—much to the irritation of some tax authorities, notably the Americans. Conferences are frequently staged in exotic (Birmingham and London banquets, particularly in Los Angeles) locations partly because attendance at them will be

Optimism

With the optimism that abounds in the industry at the moment ("There is plenty of business to be had. The more complicated the world becomes the greater the need for people to communicate," says Mr. Stan Fewster, director of the British Association of Conference Towns) it is not necessarily being churlish to ask if there are any concerns for the future. Naturally enough there are, but perhaps only small niggling doubts.

The first, naturally enough, revolves around the continued world recession. With the U.S. still not back to its eager-beaver attitudes of the sixties, and the stronger western economies apparently unwilling to take a major plunge into reflation, there is concern that the sort of recovery which would indeed provide boom conditions in the conference business is still some years away. However, conven-



Wembley Conference Centre.

air seat price war which has been so much a feature of the market. Once demand soaks up supply on the longer haul routes then it is likely that air fares will rise again somewhat faster than the average inflation rate of the nations they serve. At the moment the air content of some foreign convention packages is not necessarily a deterrent, but the conference business may have to learn to live with somewhat tougher demands of recovery which would indeed provide boom conditions in the conference business is still some years away. However, conven-

tion business has a powerful lobby voice which wants to put as many obstacles as it can in the way of foreign competition, suggests that they may be with us for some time. Other countries might follow suit, although such uniformity would probably need a conference to exchange views.

Most people seem to agree that the negative influences over the conference business are currently outweighed by the positive ones and in the foreseeable future growth in traffic is likely to be the order of the day. Certainly as the conference business itself increases in sophistication, and conference centres offer more complete packages, then the attractiveness of conferences themselves increases. It is unlikely that the need for personal contact and exchange will diminish, whatever the advances in technology, and therefore the market would appear to be set for continued development.

Although there is talk of the rules being relaxed, the fact that the dollar is anything but healthy at the moment, and that the American domestic conven-

This Report was written by Arthur Sandles

tion traffic has been such recently as to suggest that even without full economic revival there will still be enough work to go round.

Perhaps more immediately worrying, particularly to those in the large scale long haul conference market, is the question of air fares. After those years of recession, during which period the airlines of the world have built up considerable surplus capacity, air fares are currently extremely low by the standards of a decade ago. When airlines talk of a round trip fare of less than £200 to Los Angeles from London this may be good news to the traveller, but it indicates an attitude close to self-at-any-price on the part of the supplier.

Recently there have been signs of a wide revival in the air travel market. Already in Britain, for example, it is suggested that this summer will see the end of the short-haul

ties, with rumours flowing about other countries possibly following the example of the Americans in taking a tough line towards conference spending.

Broadly speaking American business people are allowed two foreign conferences a year: can only claim tax deductions on tourist class air travel; and must limit their deductions to the expenditure allowed by Washington for its own employees when they are travelling abroad. Since the last allowance in London was \$49 a day in London (and less than \$30 a day outside the capital) at the last count, and this sum has to include all spending not just hotels it is hardly surprising that American Government groups only seem to come for fleeting visits.

The impact on some destinations of this rule, introduced a little over a year ago, has been dramatic. The Canadians, who had sought special treatment, have been particularly

Battle of the cities

CLEARLY it is one thing to build a convention centre, it is quite another to fill it. If there is one thing that follows all the publicity material about "why Bolognese needs a convention hall" as sure as night follows day, it is a mountain of advertising literature urging organisations to make their bookings. Convention centres may bring considerable benefits to a community, but they can also bring problems, not the least of them administrative and financial.

The rush to build convention halls worldwide has led to fierce rivalry between towns. The battle has no respect for boundaries. London, Paris and Hong Kong will all be in there fighting for the next meeting of the Atlanta Widgits League.

The greatest attraction, of course, is the amount of money that conference delegates spend and the fact that they are likely to spend it at otherwise quiet times of the year. Although it is true that this is the time when they are quoted the lowest room rates, it is also the case that conferences are rarely staged at a time when the delegates would otherwise be on holiday with their families. An average conference delegate spends much more than a tourist from the same country.

The growth of supply in something like £100m. a year from conference delegates. The cities themselves are not alone in their fight for traffic, in this they have allies in the hotel groups, airlines, ground transportation interest and, of course, the convention centres themselves. In all these fields life has grown more aggressive over the years. Time was when convention centres were thin on the ground. Largely an American idea the notion spread over the years. However, it was the development of mass air travel, and notably the introduction of the Boeing 707 jet in the late fifties, which revolutionised the business. Suddenly it became possible to cast the net wider, and thus to organise bigger conferences in more distant places. It was therefore in the sixties that the major modern meeting places started to come on stream, a rapid expansion in capacity which continued into the seventies and might now have slowed but still proceeds. Rotterdam, Hong Kong, Manila and Torremolinos all jumped on what promised to be a lucrative bandwagon. The huge McCormick exhibition and convention centre went up in Chicago and the National Exhibition Centre was planned for Birmingham, England.

Continued on page 10

10 good reasons to hold your conference abroad.

- Geneva ☐
- Zurich ☐
- Munich ☐
- Dusseldorf ☐
- Paris ☐
- Lisbon ☐
- Copenhagen ☐
- New York ☐
- Algarve ☐
- Ibiza ☐

Penta Hotels give you a choice of locations and first class value-for-money hotels!

Like the idea of holding your next conference in sunny Portugal? Or with the Paris nightlife to look forward to?

Complete the coupon or phone Ascot (0990) 25931 and we can arrange your conference and travel arrangements for any of our hotels. Find out now about Penta Hotels and how yielding to temptation could make sound financial sense.

And if that doesn't convince you there's always our successful London Penta Hotel.

I am particularly interested in the Penta Hotels listed above

Name _____

Address _____

Tel: _____

POST TO: Penta Hotels, Old Clock House, High Street, Ascot, Berkshire SL5 7HE.

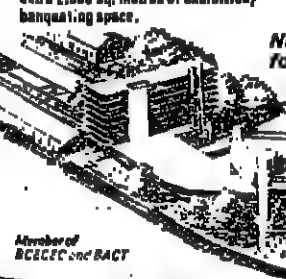
Or phone Leslie Smith, Ascot (0990) 25931.

Think!

CONFERENCES - THINK HARROGATE

Harrogate, at the centre of Britain, offers a unique complex of Conference Halls, the largest seating 1,350. Three Exhibition Halls provide over 10,000 sq. metres of unobstructed space. Harrogate's exciting new Conference Supercentre - opening 1978 - provides a 2,000 seat auditorium to international standards equipped with multi-level translation facilities and directly adjacent to the existing Exhibition Complex, plus an extra 2,000 sq. metres of exhibition/banquet space.

First class hotels with comfortable accommodation for over 2,000 delegates also offer excellent facilities for self-contained conferences/sales meetings. With many interesting places to visit, good restaurants and award-winning restaurants, Harrogate is famous for its hospitality, so you'll be made warmly welcome! For all these reasons you must choose Harrogate - Yorkshire's Supercentre Supreme.



Now booking for the 60%.

HARROGATE

Now one telephone number puts you in touch with over 1,000 venues for your next meeting or function

Introducing Meeting Point, the new Trust Houses Forte booking service for conferences, exhibitions and banquets—or meetings of any kind. Meeting Point's single telephone number—01-567 3444—now puts you in touch with a choice of over 1,000 different venues worldwide for your next meeting or function.

There's no bigger variety: from luxurious city-centre hotels and internationally famous night spots, to quiet country inns in picturesque settings. From piers and racecourse grandstands to an historic warship moored on the Thames.

Call this single telephone number—01-567 3444—and you'll speak to one of our friendly Meeting Point team. Tell her what you have in mind for your next meeting and she'll tell you what THF can offer.

Call Meeting Point whatever the meeting you're responsible for organising: a 1,000 delegate convention or a small management seminar; a sales conference or a Christmas party; a press reception or a product launch; a training course or a trade fair, an AGM or an annual dinner.

Of course we won't guarantee we've got exactly what you need, but as we're probably the world's largest hotel, catering and leisure group, with so many more venues in so many more places, we're simply much more likely to have just what you want than anyone else. And it costs you only a single phone call to find out—to Meeting Point: 01-567 3444.

Whatever the meeting or function you're organising, you owe it to yourself to call Meeting Point. Unless you're already dealing direct with the right THF venue for you!

Phone
MEETING POINT
01-567 3444

PS. If you're not sure yet what sort of place you'll be needing for your next meeting, phone Meeting Point anyway and ask for a copy of our brand new brochure called 'Meetings Made Easier'. It includes a venue planning and price planning guide which you'll find helpful when you start thinking seriously about that next meeting or function.

Meeting Point Trust Houses Forte Ltd 71/75 Uxbridge Road London W5 5SL



TRACY PARK

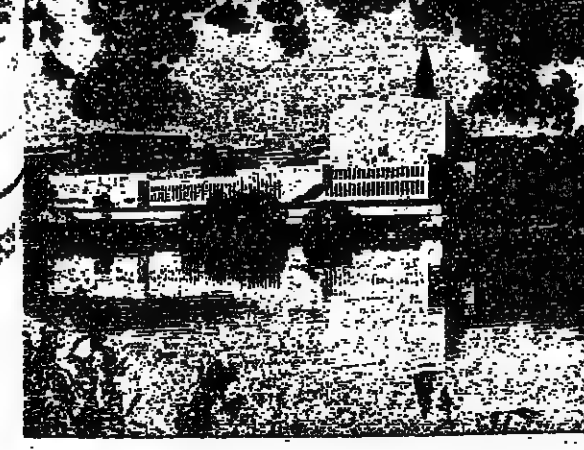
golf & country club

Bath Road, Wick, Bristol
Telephone: Abson. (027582) 2251

gnificent Jacobean and Georgian mansion over 200 acres of beautiful parkland on the western escarpment of the Cotswolds yet few minutes away from the principal towns area. (Bath 5 miles, Bristol 8 miles, Junction 6 miles).

deal environment for conferences enabling tes to focus attention without distraction so offering relaxation in the form of golfing, swimming, tennis, horse riding, etc. available.

s to accommodate up to 120. Pending com- of our hotel we will be pleased to make ations with other local hotels.



FINLANDIA HALL HELSINKI

NDIA HALL in the centre of Helsinki, an architectural piece by Alvar Aalto, is one of Europe's most taking conference halls. The main auditorium can 700 in luxury, the smaller areas any number from 100 people.

NDIA HALL offers the conference organiser the latest facilities, including simultaneous 6 languages etation, and sophisticated audiovisual equipment. at FINLANDIA HALL for your next conference?

r information from:
NDIA HALL Karamzininkatu 4, 00100 HELSINKI 10
1, Telephone 90-40241, Cable FINLANDIAHALL
or Bengt Broms, O.B.E.

CONFERENCE CENTRES II

Britain's changing scene

ALTHOUGH central London is still without its modern purpose-built exhibition/convention centre (but better news of that later) several projects have been coming on stream recently. Wembley and Brighton are now firmly established, as is the National Exhibition Centre at Birmingham. Several other developments will be coming into fruition soon and, doubtless to the delight of those who feel that the South has had a lion's share of the traffic in the past, much of the expansion is coming from the north.

Although the Barbican centre in London (with a capacity of 2,000) and that at Bognor Regis (550) will soon be in operation, it is projects such as Summerland in the Isle of Man (2,000), Blackpool (1,500) and Harrogate (2,000) which will be providing the bulk of the new facilities.

There is no question but that much of this new capacity was desperately needed. Many old conference halls have done sterling work, and will almost certainly continue to be used, but there has been an awful lot of creaking at the seams. While the conference halls themselves are serviceable enough for many uses, their lack of flexibility and poor services in such essential fields as catering and toilet arrangements have proved an embarrassment at times. It may have come as something of a culture shock to see union conferences, traditionally staged under chandeliers and surrounded by fading paintwork, held instead in air-conditioned carpet-clad comfort, but the adjustment is rapidly made.

Incentives

The new city conference centres have been added to a large stock of modern convention and exhibition facilities which sprung up in hotels as a result of the hotel building incentives scheme of a few years ago. Much has been said about the bedroom capacity that this scheme provided, but an extremely useful spin-off has been the provision of a considerable amount of small to medium-sized conference space both in London and in provincial centres.

The total meetings business in Britain will probably be worth more than £300m. this year, although precise figures are difficult to find in this highly fragmented business. For some towns the market is of considerable consequence to both the local business community and the ratepayers. Brighton may have seen nearly £9m. on its new conference centre, but that is less than the annual spend of conference delegates in the seaside town anyway. This year Brighton reckons that spending will jump to £15m. or more. The average spend of a delegate in the town during a three and a half day stay is £90, which puts him in a much more attractive league than the normal run of day trippers.

Of course, investment in centres is not without ancillary worries. Birmingham may be

proud and delighted with its new centre but it has raised some eyebrows with its increased rates and has been watching staffing levels in order to "become viable" next year and move into profit by 1983-84.

The NEC is having to work hard for its business, but it is a spectacular piece of initiative which deserves success. In this specialised field of large exhibition centres the NEC's main domestic rival is, of course, London and specifically Earls Court. The capital seems to have backed off from any thought of attempting competition with the NEC in the form of new buildings. One recent estimate of such an exercise put the cost of building a London exhibition centre from scratch at between £150m. and £200m. and acknowledged that this would take several years to complete.

Instead the London Convention Bureau floated the idea of Greater London Council investment in Earls Court renovation, an idea that seems to have delighted Town and City Properties, the exhibition centre's owners. The LCB pointed to Brighton's spending on its new facilities, talked of Harrogate spending £8m. and of Aberdeen investing £5m. It voiced its alarm in no uncertain terms: "The opening of the National Exhibition Centre

in Birmingham provided a further 100,000 square feet. I understand that the GLC has reacted favourably to this campaign, of which the LCB remarks were but part, and that the announcement of some sort of GLC involvement in Earls Court is not now far away. Whether it will be anything like £10m., however, remains to be seen.

The Council must be encouraged by the optimistic words which are coming out of Wembley Conference Centre, the £14m. project which it was at one time popular to label as North London's White Elephant. Now Wembley says that its first year's figures are better than had been projected for the third year of operation.

Figures for the year show that a total of over 300 events has been held in the Centre—one of which booked the whole building for 21 weeks. Conferences were attended by 350,000 visitors. It is estimated that approximately 45,000 of these delegates and visitors came from abroad and that they represented £8m. of invisible earnings (including hotels, shopping etc.). Some of these events they came to would have been held in other locations on the Continent if Wembley's new facilities had not been available. An estimated 700,000 cups of coffee and 780,000 meals

were provided by Letheby and Christopher, the Wembley Complex caterers.

Even Wembley has discovered that one of the great attractions of London is the very fact that it is London. Whatever money is spent by rival destinations it is difficult to match the facilities of London's cultural and night life. This is why the capital has carved itself such a sizeable place in the international market.

One of the great demonstrations of this popularity came late last year with one of Britain's more interesting invasions—the several thousand Sweet Adeline harmony singers. It has been estimated that besides memories of their spectacular hairstyles and nipped waists, wide hemmed dresses, the Adelines left behind some £3m. which they spent while they were here.

The Adelines provided an indication of the sort of work which any city has to do these days in order to get business of this magnitude. The London visit was originally negotiated five years ago and involved repeated journeys to the U.S. to finalise arrangements. May conferences (were the Adelines in conference?) have a slightly shorter lead time than this, but two-three years is not unusual for a 2,000-plus international meeting.

Whether the capital will be the like again is doubtful. This year we have to make do with the International Gas Turbine conference in April, followed by the Sixth World Conference of Retailers and, to cap it all, a wasted, wide hemmed dress, the Adelines left behind some £3m. which they spent while they were here.



If money talks at your Conference, then the vote will be for Blackpool—the popular choice, which your delegates can afford to enjoy. Free Business Accommodation, Civic Hospitality, Special Conference Hotel Rates, Easy and Economical to reach by Rail, Road & Air. Professional know-how. The cost-conscious Conference Centre in the heart of accommodation and social life.

For all details and co-operation contact: Bob Batterbury, Director of Attractions and Publicity, Attractions and Publicity Department, Town Hall, Blackpool FY1 1LY. Telephone: 0253 22183

Blackpool
THE TOWN THAT INVENTED CONFERENCES

IPSWICH THE CORN EXCHANGE
SUFFOLK
Entertainments, Conference and Arts Centre

Have you considered us for your convention or seminar? NO! Read on—you will find something to interest you—
IPSWICH is at the heart of East Anglia within easy reach of London by road or rail, the Midlands by road or the Continent by sea. It is set in the beautiful Suffolk countryside—the ideal touring base for the region.
Hotel accommodation is excellent, offering friendly service and reasonable prices within easy reach of the town. (We can even arrange your transport.)
For your meeting—a superbly equipped and air-conditioned Film Theatre seating 220.
Plus several other halls (seating 30-900).
Exhibition space (50-5,000 sq. ft.).
Extensive banqueting facilities.
WANT TO KNOW MORE?
Contact: Jim Gillies, Civic Centre, Civic Drive, Ipswich.
Telephone: Ipswich (0473) 55851.
DEPARTMENT OF RECREATION & AMENITIES
R&A
Director: J. G. R. Bevan MSc JP.

NOW READ ON
In the centre of Ipswich, the Corn Exchange is ideal for your convention or business seminar. It offers—

Fairs in Göteborg 1978

MATERIALTEKNIK Material Engineering April 4-7	INTERFOOD/INTERREST Food products and Machinery Restaurant equipment, Shop fitting October 10-13
ISM International Swedish Machines International Swedish Trade Fair—Machines, Tools April 20-25	ANTIQUES FAIR International Arts and Antiques Fair October 21-23
PUBLIC TRANSPORT SYSTEMS IN URBAN AREAS June 27-30	ENERGITEKNIK Energy Engineering October 24-27
KOMMUNALTEKNIK MASSA Public Service August 28-September 1	KEMI Chemistry November 7-10
DAGENSHUSALL International Consumer Goods Fair September 18-24	SCANAUTOMATIC Hydraulics, Pneumatics, Electronics, Transmission Equipment November 20-December 2
FLYTANDE BATTASMAN Floating Boat Show, Långedrag September 22-26	Swedish Trade Fair Foundation Box 2222, S-402 24 Göteborg Telephone: 031 20 00 00 Telex: 20 900 000 S

BRITISH UNIVERSITIES ACCOMMODATION CONSORTIUM

Covering all parts of the U.K., the 40 British Universities of BUAC offer an excellent range of meeting and lecture rooms, comfortable, attractive, low cost residential accommodation, plus a high standard of catering for Conferences and similar bookings. For illustrated brochure apply to:—
General Secretary, BUAC, Box U327, University Park, Nottingham NG7 2RD.
Tel: 0602 64571. Telex: 337876

SCOTLAND
Ideal venue for small Executive conferences. Integrated facilities available in reconstructed Georgian mansion house, 14 miles south of Edinburgh.

MIDDLETON HALL CONFERENCE CENTRE
Can accommodate up to 74 residents. Dining room seats 80. Ample syndicate and larger meeting rooms. Bar and lounge facilities. Games room. Extensive grounds with tennis courts and croquet lawns. Full central heating. For further information contact Janet Hunter, SNC, Ltd., 57, Regatta Street, Edinburgh EH3 7HE. Tel: 031 221 8381

FULCRUM CENTRE
QUEENSMERE SLOUGH SL1 1TL
Administration: SLOUGH 39291

* M4 (1 mile); M40 (7 miles); M3 (12 miles); Heathrow (4 miles); London (20 miles)
* Paddington 12 minutes
* Visit Royal Windsor, Thames, Ascot Races, Chilterns, London
* Colour Brochure and Technical Specification from: Fulcrum Centre, Queensmere, Slough, Berkshire

Shops Bars Parking

SLOUGH
centre of industry

ideal for

Trade Shows
Product Launch
Conferences
Exhibitions
Lectures
Seminars

Banquets
Concerts
Dances
Theatre
Star Shows
Cinema

Thames Hall
1200 seats

Fulcrum Centre
0753 39291

Berry Hall
250 seats

Planet Theatre
400 seats

ALDERMASTON COURT

The every day of the week conference centre

Although dating back hundreds of years, Aldermaston Court is very much a conference centre of the present. You will find it set in 130 acres of beautiful Berkshire countryside just off the M4 and nine miles from Newbury, Reading and Basingstoke. Here we have created an ideal study environment. Not only do we have the facilities to take the worry out of your arrangements but we can also provide the perfect setting to help make your next conference a success.

- Full residential facilities
- Accommodation for up to 40 delegates
- Four well-equipped conference rooms
- Spa use guaranteed
- Available for weekend and midweek conferences and seminars

Flexibility is the key to the Aldermaston Court conference centre and all facilities can be arranged to fit into your schedule.

To find out more, fill in this coupon and post today or telephone Natalie Eadon on 073-521 2241.
ALDERMASTON COURT, READING RG7 4PW

Name

Company

Address

Phone

Combine business with leisure on The Great British isle.

Although Jersey may be better known for its leisure activities, it has a long history of business too. So its conference facilities are some of the finest to be found anywhere.

There are hotels with conference rooms to suit quite small meetings, up to 500 people. The Jersey Convention Bureau will be pleased to forward to a client's current brochure which details the facilities of one by one.

Transferring delegates to Jersey is a simple matter too—with direct flights from all over the country. There are no currency arrangements to be made either.

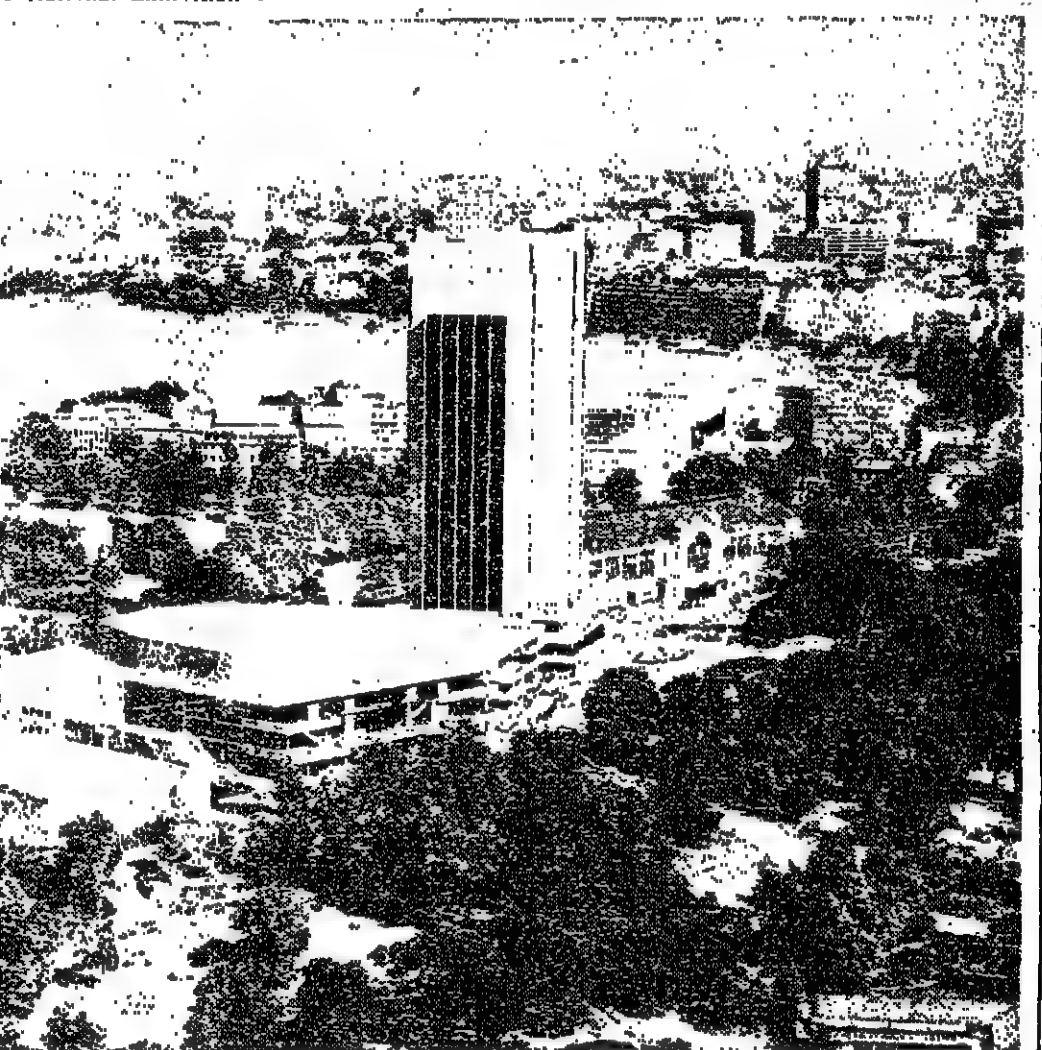
No language problems. And to lengthen that the people of Jersey will not go to the trouble of making a successful as possible.

Of course, after a hard day around the conference table, you'll be glad to be on home ground. It's where you can buy a great English pint, shop around for bargains, and in Jersey there are lower duties and no VAT. Oh you can't get out of the excellent restaurants where fresh caught fish are the speciality.

There are plenty of good reasons for staying over next conference in Jersey. It could even be said to be a good talking point.

The Convention Bureau, Jersey
Deputie au, Weightbridge, St Helier, Jersey, CI.

Jersey
the right climate for a conference



The Hamburg Congress Centre.

The professionals take over

ONE OF THE most impressive changes that has come over the conference business in recent years is the spread of professionalism. To-day another example of the way in which the business is progressing can be seen at London's Royal Lancaster Hotel when the Association of Conference Executives opened a two-day conference on conferences—as usual the event has been given a trendy label, Contact 78.

The conference itself is heavy on the show-biz glitz (William Rushin, Gayle Hunnicutt among others) which should lead to some lively sessions, but the subject areas of the workshop discussions serve to indicate just what it is that worries conference planners to-day: Are incentives stimulators or just last-ditches? Are conference buyers treated like poor relations who only fill off-season space? Are "purpose built" conference centres built for any particular purpose? And who needs all the razzmatazz of stage productions and audio-visual aids?

In fact these subject headings indicate the sort of complexity that the conference organiser faces to-day should he be new to the game. He quite often feels he needs assistance but finds so much of it offered, at a price, that he can emerge as confused as when he started. It is hardly surprising therefore that ACE itself is showing signs of increasing popularity, and increasing demands on its services as a central point for the exchange of ideas.

The trouble with describing the need for professional help in so many conferences is that much of the evidence sounds obvious. Nonetheless, it seems that many a pitfall is no less deep for being visible a long

way off. For example, a major failing of the inexperienced conference organiser (and, dare I say it, of some experienced) is to try to pack too much into the programme. The advantage of such a ploy is that it looks good on paper. It may help to sell tickets and will probably impress the boss, at least in anticipation. The event is likely to be less impressive.

Few things irritate an audience more than a convention which runs late, which leaves little or no time for floor discussion, and above all which cuts meal and cocktail time down to nothing because the sessions are all over-running.

Surprising
I enjoyed the doubtful honour on one occasion last year of speaking (very, very briefly) to an audience of a handful in a hall which an hour earlier had held 2,000 people. A couple of other speakers suffered the same fate since we actually rose to our feet after 1.15 in the afternoon. By then everyone had gone to lunch. The chairman seemed not to have noticed.

It is surprising how many conferences have inadequate audio-visual systems, uncomfortable chairs and chairmen have been chosen for their position in the chair. One of the great advantages of an outsider is that they are allowed occasionally to tread unwarily through office politics, choosing speakers for their ability and subjects for their relevance rather than for some other mystic purpose.

For many organisations the annual conference is the single most important event of the year, and yet so often it is

completed with something of a nasty taste being left in a few mouths. Sessions among the organising committee after a conference can often be more lively than those before it were.

Clearly, however, there is a considerable eagerness to pick up tips. The ACE gathering will be almost sold out (could there be a more critical audience?) and there is an increasing supply of information on conference techniques and technology.

The demand is present because more and more companies and organisations realise that conference organisation is increasingly a specialised art. This does not necessarily mean that more of them are buying in expertise. Such is the frequency that larger bodies are called upon to involve themselves in conferences both large and small that more and more of them are making conference organisation a special activity within the company.

The firm that only a few years ago delegated travel to a junior secretary and let the youngest clerk organise conferences, now probably boasts both a travel manager and a conference organiser.

HARROGATE
Old Swan Hotel
BRITAIN'S MOST DISTINGUISHED CONFERENCE HOTEL.
Conference Secretary
Tel: Harrogate 504051 RAG

- 150 Rooms 120pb
- 3 or more Suits
- Penary Conference 300
- 4 Private Rooms x 75
- Banquet Dining 300
- Budget Quotations
- 3 Restaurants
- 11 a.m. to 11 p.m.

Telex: 57922 Oldswan Harog
One of Britain's PRESTIGE HOTELS

CONFERENCE CENTRES III

Days in the country

ONLY the larger hotel groups which have found there is a need for conference facilities independent of the country of the larger hotel group. The growth of the "country hotel" philosophy has been increasing in recent years. The growth of the "country hotel" philosophy has been increasing in recent years. The growth of the "country hotel" philosophy has been increasing in recent years.

The simple spin off that might be expected. The small control of a property with say 30 rooms. Couples who have sought out their own quiet country retreat are not particularly enthused by brandy-drinking, late-night groups that can easily emerge from even a small gathering. The conference people themselves too, often do not wish to stand out among the visiting crowd, preferring instead to mix with the normal hotel guests.

Marketing

The marketing of this sort of operation is a slow, if finally rewarding, business. Some of the larger operations which have carved themselves a name for the retreat-type of gathering, such as the Selsdon Park Hotel near London, can run to modest advertising campaigns. For most, on the other hand, it is a matter of cultivating personal contact.

Since the man who makes the final decision is going to end up bringing his closest business colleagues and their wives along to meetings he is likely to take some care in making the final decision. But that decision, when taken, has every chance of being a long-term one. Small conference business tends to be extremely loyal. A good country hotel operation can find itself with a list of companies who hold meetings for 10-20 people as often as monthly, and also use the hotel for small, intensive training courses. It does mean being willing to offer rooms in the peak season as well as the winter, but the investment is very worth while.

One type of accommodation which also tends to be in pleasant surroundings and does not suffer from the difficulty of wanting to turn away convention business in high summer is within the universities. Turning over the campus to holiday

and conference business is a relatively recent development, but has proved very popular. The advantages are that the facilities are often of a high standard, the disadvantages are that very often the student accommodation is not quite what many conference delegates have come to know and love. Too many of us these days feel a strong need for a room with colour television and telephone.

It was only in 1970 that the universities got together on anything like a formal basis. At the time there were only 12 of them in a modestly run consortium which attempted to deal with a demand which was increasing almost without any promotional work being done. To-day there are more than three times as many members spread geographically from Aberdeen to Southampton and able to handle meetings of a considerable range in both size and nature.

Revenue this year will probably easily exceed £6m. Biggest of the on-site university halls is that at Edinburgh (Pollock) with 1953 seats, but at Leicester there is accommodation of marginally greater capacity close by. Most universities can deal with conferences of several hundred delegates with ease. One of the benefits that they offer is extensive public areas and the frequent provision of numerous ancillary rooms to use the hotel for small, intensive training courses. It does mean being willing to offer rooms in the peak season as well as the winter, but the investment is very worth while.

Another beneficiary from the "away from it all" desire is Ireland. A country hotel for a conference is an attraction enough, but a country hotel in Ireland seems to add another dimension to the game. The Irish in a current campaign to further increase tourism from Britain, are placing particular stress on the Republic's con-

ference facilities. My own love, the Irish west, has an impressive array of accommodation and, if you like that sort of thing, you might be pleasantly surprised at how many recently built fully equipped modern hotels there are in the area.

The trouble with Ireland is the additional temptations. Whatever else you are a long way away from, you are never very far from fishing, golf, horseback riding and those amazing village pubs. It's all a bit distracting if you are trying to get on with some business, but, after all isn't a conference meant to inform, entertain and also relax you?

Even greater escape can be had, of course, by chartering a ship. Most shipping lines are actively involved in the convention business, willing to sell part as well as full charters. It is not always realised that cruise companies are often quite keen to sell space at special rates, particularly in the shoulder months, to convention organisers.

Like the small hotel, no company particularly wants a convention which is of such size as to disturb the life of the rest of the passengers, but even quite large gatherings can be interrupted unless the organiser is determined that everyone should wear large badges or even corporate uniforms. I was recently on a cruise where a large section of the passengers were a religious group conferring (needless to say they were Americans). The only irritation was that since their rules did not apparently ban either drinking or dancing it was extremely difficult to tell who was a conventionist and who was not.

The more ambitious can always rent the QE 2 or the Canberra for a week or so — at least you know that the delegates or employees cannot actually leave in the middle of things. The real growth market, however, is in more modest affairs, with getting away meaning simply country air, country food and a chance to talk in a relaxing environment. It is a business which is attracting an increasing amount of interest.

Something more than a Conference Centre

Club in the heart of London has a lot to offer a conference:

- conference/reception rooms
- capacity for 350 day delegates, and full catering facilities
- hibition facilities
- enight accommodation for at least 70 people
- minutes from Piccadilly
- minutes from Heathrow by direct tube
- atral to all London's train termini
- quash courts, 4 billiard tables
- ess and card rooms
- Large swimming pool
- rich baths, sauna and steam rooms
- stery
- staurant with one of the finest
- ie lists in London

Interested, or would like to find out more, write or telephone: The Secretary, 1 Pall Mall, London SW1Y 5HS. Tel: 01-930 2345.



MEETING FOR PROFIT

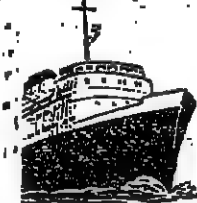
Time is a lessening commodity and we must make the most of it. In arranging a conference in the Isle of Man, we save you time by making it so easy. We will give you all the help you need and prices are so competitive. Our scenic island has wonderful conference facilities and there is plenty to do and see.

Self (seven courses), Fishing, Pony Trekking, Casino, sports and lots more to make your conference successful. (Further information telephone 0624 4323 or telex 627793 or simply fill in the coupon below.)

Mr. J. Kennedy, Sales Promotion Manager, Dept. MW of Man Tourist Board, 13 Victoria Street, Douglas, Isle of Man.

Name: _____

Address: _____



Travel by Sea to the Isle of Man

FOR YOUR CONFERENCE
All fare reductions for delegates, their wives & friends sailings:
Liverpool—twice daily throughout Summer Season; during Winter.
Frequent sailings during Summer Season from LONDON, BELFAST, DUBLIN, FLEETWOOD AND DUNDEE.

DO NOT BRING YOUR CAR WITH YOU?

Articles from: Dept. 200
The Isle of Man Steam Packet Co. Ltd.
(Incorporated in the Isle of Man)
Imperial Buildings, Douglas, Isle of Man
Telephone: Douglas 0624 3324

NSHAM POND HOTEL

Chert, Farnham, Surrey - Tel: Farnham 3175
is independent country hotel approximately one hour from London. Excellent facilities for Conferences and Seminars. Relaxed surroundings. Very competitive prices.
Full details sent on request.

Your complete conference agenda

- ☒ **Comfort** Selsdon Park Hotel is fully equipped for 4/5 day conferences, weekend seminars, etc. for 10/120 delegates. All bedrooms with bathroom and colour TV. Good food, wines and friendly service.
- ☒ **Efficiency** With experienced staff to help you—Selsdon Park Hotel provides sectional stages, amplification, projectors etc., and full attention to the needs of conference organisers.
- ☒ **Superb Surroundings** 200 acres of beautiful parkland. Free amenities for residents include: Championship 18-hole golf course, putting green, grass and hard tennis courts, open air heated swimming pool, riding (extensive), sauna, and 4 full-sized billiard tables. Write or telephone Mr. F. T. Sanderson for colour brochure. ONLY 1/2 AN HOUR FROM LONDON



Selsdon Park Hotel
Sanderson
South Croydon
Surrey
Tel: 01-857 8811
Telex: 845903



Cities

CONTINUED FROM PAGE ONE

modern facilities has probably now reached the stage where, in a buyers market, the consumer is very much in a position to ask for rather more than just the latest in seating and audio-visual systems—and most buyers do indeed seek more.

Increasingly, as a result, the city convention bureau is of paramount importance in securing the business. This is simply because the convention bureau tends to act not only as an initial stimulant to choice—making the sales pitch that produces the first inquiry—but also as a co-ordinating centre throughout the planning of the conference or exhibition itself. Not least this is because a large conference will be seeking all manner of fringe benefits as a result of bestowing its custom on a city. In its crudest sense this will involve seeking a direct subsidy from the city itself, but more often in quoting a base price per delegate and asking the city to ensure that everything can be provided for that price.

Obviously this involves a considerable amount of co-ordinating work. A typical international conference might say that for \$40 a day it wants the conference facilities, coffee, meals, road transfers to and from hotels, a couple of cocktail parties and a night at the theatre. How the city fixes all that within the price allocation is a matter for long sessions between the various parties involved and the convention bureau—the conference organiser, who may be 10,000 miles away and "organising" the event in his spare time anyway, is in no position to become directly involved in the arguments.

Frequently, of course, some of the bill is picked up by organisations eager to impress the delegates. Thus I have been dining (with several hundred others) by General Motors at a motor industry gathering, lunch by Disney at a travel congress (this time the total was 2,000) and offered refreshment by Rank at Cannes.

In many industries there are numerous companies for whom the cost of providing food is a tiny price to pay for the opportunity to make a sales pitch to what is probably a highly influential group of prospective customers. Unfortunately for some conference organisers, not every profession is prepared to involve itself in such blatant commercialism. This particularly applies to medical conferences. The medical world is notoriously unwilling to sell even its meal and cocktail breaks to commercial sponsors — "your caviare to-day ladies and gentlemen was by courtesy of noctemous sleeping pills who will now show you a short film." Nor is it very keen to have exhibitions allied to its conferences, another favourite way of generating cash.

In cases such as this the convention bureau might attempt to enlist local counterparts of a professional organisation to play some form of hosting role. Some cities, notably resort areas in the off-season, will pay heavily for custom, not only subsidising the convention directly but also indirectly by providing city services, such as buses, for nothing.

Tickets

Fortunately this is the sort of game that the larger cities, like London and Paris, do not have to involve themselves in. Nonetheless the flat-rate principal very much applies since organisers have got to quote a basic price to their members or other delegates, and sometimes do this more than a year in advance. What the cities do become involved in is the negotiation of bulk rate purchase of theatre and sporting event tickets and of visitor books which contain discount cards for various local attractions and activities.

In spite of all this rivalry it is surprising how friendly the major cities of the world are. The convention bureau heads all seem to know each other very well and be willing, occasionally, to pass business around. This is not quite as stupid as it sounds. An international conference that goes to Hong Kong, for example, in 1978, is unlikely to pick the same part of the world in 1979 and therefore Rotterdam, Helsinki or Harrogate are much more prominent candidates. Thus a sort of convention mafioso builds up which ensures that a conference is not allowed to slip out of the circuit.

First seen from the outside it is an impressively high-powered and sophisticated marketing world, one of fierce competition perhaps, but also one with a degree of old world gentility — not that anyone is beneath spreading a murmur or two about a rival's inflation rate, or rain record.



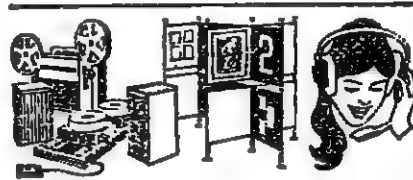
The natural Conference Centre Greater Manchester



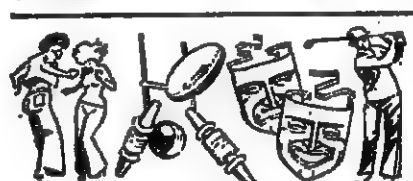
ACCESS Greater Manchester lies at the very heart of the UK with a matchless motorway system, an airport acknowledged as England's major international air terminal outside London and inter-city rail only 2 1/2 hours from the capital.



VENUES From intimate 5 star hotel suites to complete stadiums through public halls and universities Greater Manchester copes easily with conference needs from 6 to 60,000.



SERVICES Every service is available from audio visual specialists, display experts, catering on any scale to hostesses and translators.



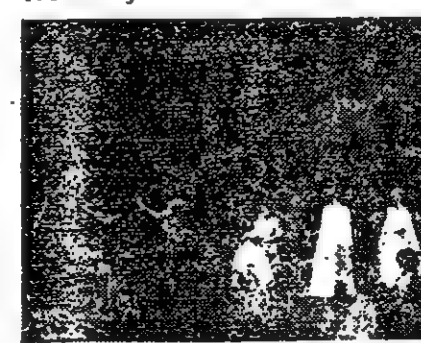
LEISURE Whatever your pleasures, theatres, restaurants, clubs, discos, sport, Greater Manchester offers them all in abundance.

Full details from:
PAUL BARLOW
Public Relations Officer
Greater Manchester Council
County Hall
Manchester M60 3HP
Telephone: 061-236 2862

Greater Manchester

Think of a number between 1 and 2,500 then plan a conference around it.

Pretty soon, you'll come to the conclusion that, no matter what the number you first thought of, you end up with the answer—Wembley Conference Centre.

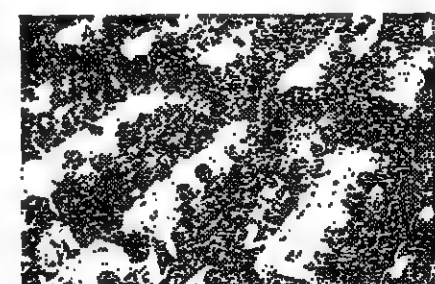
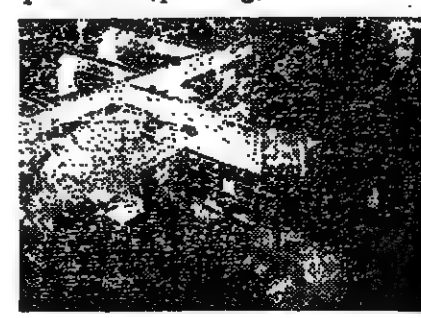


Admittedly, it's difficult to organise a conference of one, but 2,500 is no trouble at all when you have all the facilities of the Wembley Royal Hall at your disposal. And whether you call it a conference, a convention, a symposium, meeting, debate, product launch, sales talk, AGM or seminar, we can cope at Wembley.

The Avon and Severn Suites are versatile theatre complexes with seating for 130 to 500; they've got full projection equipment, closed circuit TV and

simultaneous interpretation facilities for up to eight languages.

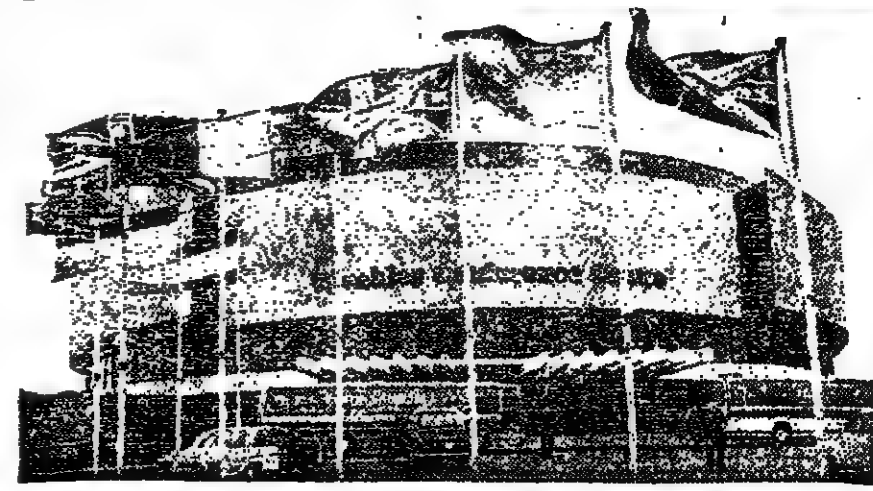
On a smaller scale, the Westminster, Chaucer and Abbey Suites offer a series of rooms for 12 to 100 delegates, with the adaptability that makes them equally fitted for discussion, board meetings or sales reviews and for dinners—and you could always follow one with the other. And if even this seems too ambitious, there are yet more small rooms that still enjoy all the central services available as a back-up for the 2,500 seat main auditorium; secretarial accommodation, personal paging systems, printing and reprographic facilities, banking, post office, parking, even



photographic coverage of your event.

The inner man is not forgotten either. There's a range of bars and complete adaptability within the catering field. We can lay on anything from a finger buffet for 25 to a four-course meal for 2,500 at the Centre—and to a very high standard.

The potential of the Wembley Conference Centre is vast; it's up to you to make the most of it, but even there we can lend a hand—in planning and presentation. So next time you're planning an event, give us a ring and see just what we can do. Better still, ring Bernard Owen or Anne Banford on 01-902 8833, and let them help you realise the full potential of your conference, no matter what the number from the start.



Wembley Conference Centre London

OVERSEAS MARKETS

EUROBONDS

Dollar decline sets the pace

THE EUROBOND market reacted to last week's reacceleration of the dollar's fall on the foreign exchange markets in a manner which is now only too familiar: dollar bonds fell, ending the first sustained sign of a stabilisation in this sector since the autumn, while D-mark and Swiss franc bonds in particular rounded ahead.

The dollar fell to DM2.0617 last Friday, down from DM2.1080 a week earlier, and to Sw.Frs.1.9505. Among Swiss franc foreign bonds, the recent Citicorp issue ended a week at 105, from 103 a week earlier, though this was perhaps a particularly strong performance. Norsk Industribank, the latest issue to start trading, was quoted on Friday at 102—it had been priced at par.

In the D-mark sector, trading on Friday was described as "hectic". Recent bond issues were bid well up to and above their issue price.

In the Yen sector, three issues announced last week included a large ¥50bn. (about \$200m.) offering for Australia which was expected to have a low point for yields. However, the higher yields on the Finland and Oslo offerings announced subse-

quently suggest that this was more a tribute to Australia's special popularity with investors than an indication of a general trend.

In the D-mark sector, the final terms on issues priced last week confirm a further erosion of yield levels. The New Zealand offering was priced at 100½ despite having a DM50m. increase and a one-year extension of the maturity since it was originally due for scheduling a month ago. The most spectacular change was in the Fujitsu convertible, which started trading at a premium of about three points despite a last minute coupon cut by half a point to 4 per cent. This new 4 per cent coupon level was reaffirmed in Friday's announcement of a new Japanese convertible, for Nishin Steel.

The 5½ per cent coupon scheduled on the EIB's issue is the lowest yet for its maturity: the World Bank paid 5½ per cent at 92 to yield 5.56 on the twelve year bond (average life 10½ years) which was priced only three weeks ago.

Due for announcement later today is the DM200m. offering for Venezuela for which WestLB is lead manager.

In the dollar sector only \$55m. worth of straight bonds remain on offer, although the European Investment Bank has held a two

tranche \$200m. issue in New York via Merrill Lynch.

The main surprise continues to be the lack of new borrowers wanting to take advantage of the current strength of the floating rate market. The one bond on offer, announced over the week-end, is scheduled to be placed solely via a Far East consortium. The rate will be tied to a quarter point above the Singapore offered rate—Asian issues and loans are usually priced on the London inter-bank rate, which tends to be lower than the Singapore rate.

In the dollar secondary market, the main developments of the week were the sharp falls in Massey Ferguson and Reed bonds, in the one case following the passing of the dividend on the preference as well as ordinary stock and in the other due to fears over Reed's Canadian operations.

The only issue to start trading was New Zealand Forest Products which opened firmly at 98 bid. Dealers did not, however, expect this heartening performance to be extended to the two bonds which start trading today.

Experience in the sterling sector was mixed last week, as the fears of a resumption of the trade deficit even sooner than pessimists expected were renewed with the announcement of a deficit for January. However, Samuel Montagu took advantage of a rally in the sterling/dollar rate on Friday to bring out one of the issues which have been rumoured for several weeks: Allied Breweries. (The borrower is technically called Financiering Maatschappij D'Oranienboom.)

The 10½ per cent indicated on the bonds and indicated pricing of "at or around par" make the terms identical with Rowntree Mackintosh and Secur, both of which were bid at a discount of

about 1½ points on Friday. Although the final maturity is somewhat longer than on these other two recent British corporate issues, the average life is marginally shorter due to the operation of a sinking fund which starts in 1982.

On the basis of the average life, the closest comparable issued issue, the 7½ per cent due 1988, is yielding 10.19 per cent. The Treasury 10 per cent of 1990, however yields 11.66 per cent.

Paribas Canada seeks stake in Power Corp.

By Robert Gibbons

MONTREAL, Feb. 19. PARIBAS PARTICIPATIONS, wholly owned by the French Paribas banking group (controlled in turn by Compagnie Financière de Paris et des Pays Bas), may take an equity stake in Power Corporation of Canada, the Montreal based holding company which owns Consolidated Bathurst, Investors Group and other financial interests and publications.

BOND INDEX AND YIELD		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

EUROBOND TURNOVER		1977		1978	
Index	Yield	Index	Yield	Index	Yield
1000	10.00	1000	10.00	1000	10.00
1000	10.00	1000	10.00	1000	10.00

61g	4	ParAbnWorlAir	5	251g	17g	CGI	25
271g	31	Parer Hannfin.	221g	18	152g	UOP	1451
277g	191g	Peabody Int.	201g	431g	271g	Enderer	371g
241g	201g	Pen. Pr & L	221g	56	471g	Enderer NV	341g
				17	17		14

[illegible]

<p>7. New North-Dan, Luxembourg 1932, 1933, 1934, 1935</p> <p>International Pacific Inv. Mgmt. Ltd. 193 Bond, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2</p>

[illegible]

هنا من الأهل

[illegible]



Callaghan in Ulster security talks after bomb carnage

BY OUR BELFAST CORRESPONDENT

MR. ROY MASON, the Northern Ireland Secretary, had consultations yesterday with the Prime Minister about security in Ulster, following the restaurant bombing which killed 12 people and injured 30.

The Provisional IRA last night admitted responsibility for bombing the La Mon House restaurant at Comber, County Down.

Meanwhile, Mr. Jack Lynch, the Republic's Prime Minister, denied suggestions by the Northern Ireland peace movement that IRA attacks are mounted from south of the border.

A statement in the Commons is expected from Mr. Mason today after his talks with Mr. Callaghan and senior Cabinet members, including Mr. Fred Mulley, Defence Secretary, and Mr. Merlyn Rees, the Home Secretary.

Late warning

The heavy death toll was clearly the result of a bombing raid which went wrong. The attempt to destroy yet another popular nightspot became a nightmare because bomb warnings came too late for anyone to be evacuated.

The gruesome task of identifying the victims continued yesterday as the wave of revolution spread. The bomb was of the incendiary type, used by the Provos with increasing frequency.

The Royal Ulster Constabulary said guns of petrol were strapped to the bomb, which had been placed at a window in the restaurant. Most of the victims died in the blaze which quickly engulfed the room at the restaurant where members of the Irish Culic Club were meeting.

Shock tactics

Police yesterday distributed thousands of leaflets showing the charred remains of a woman caught in the inferno, in a bid to shock the public into giving information.

Twenty suspected Provisional IRA members were still being questioned in Belfast. They were arrested in a swoop after the explosion, but the RUC admitted that none were suspected of being directly involved. One of them is Gerry Adams, reputed to be the top Republican in Belfast.

A team of 100 detectives began the task of eliminating every stranger seen near the restaurant

before the blast. They believe they have found the bombers' getaway car: it was stolen in a Republican area of Belfast. Pope Paul joined politicians and other church and community leaders who reacted swiftly to the tragedy. A Vatican spokesman said the Pope had expressed his sorrow and grief about the bombing and other recent killings in Ulster.

Leaders of Ulster's Protestant paramilitary groups were meeting today. The danger of revenge attacks by Protestant extremists is not thought to be strong, because the restaurant bombing, unlike other mass murders in Ulster was not blatantly sectarian.

Giles Merritt in Dublin writes: Referring to a charge made here by Peace Movement leader Mrs. Betty Williams that his recent remarks on Irish unity had given the IRA "the go-ahead to continue their campaign," the Irish premier said the Peace Movement should not enter into controversial politics.

Mrs. Williams had also implied that the Republic was a haven for Provo terrorists, and Mr. Lynch retorted that suggestion: "I am absolutely satisfied that the IRA's campaigns are not directed from Dublin."

The Provisionals' attacks, he added, were "planned, generated and perpetrated in the North." He had been told by the British Government that only 2 per cent of Ulster violence originated from border areas.

Earlier, Mr. Lynch had described the La Mon bombers as "callous beasts." There seems little doubt that the attack has had a moderating effect on discussions this weekend of the Ulster question at Mr. Lynch's Flanna Fail Party's annual conference.

'Think tank'

The expected forthright debate on reunification was dampened by the news of the tragedy. The Prime Minister's own keynote speech nevertheless concentrated on the Ulster problem, and Mr. Lynch announced that he is setting up a "think tank" study group on Ulster policy and the implications of reunification.

He had been expected to reveal that a White Paper was being prepared, but he explained that the 7,000 delegates that in-depth study would be "a necessary prerequisite to drawing up a White Paper."

Cabinet meets to discuss Budget measures

By Rupert Cornwell, Lobby Staff

THE CABINET yesterday spent more than four hours discussing the strategy and shape of the Budget Mr. Denis Healey will present on April 11, amid some signs of progress towards a consensus.

The talks, held at Chequers, represent a distinct departure from previous practice, by allowing departmental Ministers a chance to give the Chancellor their own views while his proposals are at the formative stage.

Last night Senior Ministers were stressing that no decisions were taken and the position remains open. Mr. Healey is leaning towards a more cautious approach than seemed probable a few weeks ago — an attitude that will have been reinforced by the disturbing economic indicators issued last week on the trade and money supply fronts.

It seems likely that he will have resisted Ministers, led by Mr. Anthony Wedgwood Benn, the Energy Secretary and including, it is understood, Mrs. Shirley Williams the Education Secretary, who want a much more ambitious package than the maximum £1.5bn. to £2bn. injection now said to be being pressed on the Chancellor by the Treasury.

But by all accounts the exchanges, reported to be "good and candid," produced a less dramatic confrontation between the two schools than was feared in some quarters.

Ministers were emphatic that the quest for the correct balance in the April package will, if anything be more complicated and delicate this year than on previous occasions—even if electoral considerations are set aside.

The nub of the dilemma for the Chancellor is that the 3.5 per cent growth for the economy forecast for this year is unlikely to be met without an added boost from the Budget. But this has become a riskier proposition after the latest figures on monetary growth and the expansion of imports.

In tactical terms the Chancellor has to decide how he imports the stimulus: although tax cuts are certain, the choice between action on tax allowances or a cut in the bottom band has to be made. To what extent Liberal allies for their part, would like more done on the direct tax front, if necessary offset by changes in VAT or other indirect taxes.

Every sign is that the Chancellor will take full advantage of the time in hand by waiting to see the picture that emerges from the indicators between now and early April.

THE LEX COLUMN

Coral paying over the odds

Shares in Coral Leisure have dropped by a quarter—four times more than the market as a whole—since just before its bid for Pontin's was announced early last month. There are no signs that its shareholders are going to register any serious opposition to the deal when they meet this week to approve the capital increase necessary for it to go ahead. But they may still have an uneasy feeling that they are paying over the odds for Pontin's.

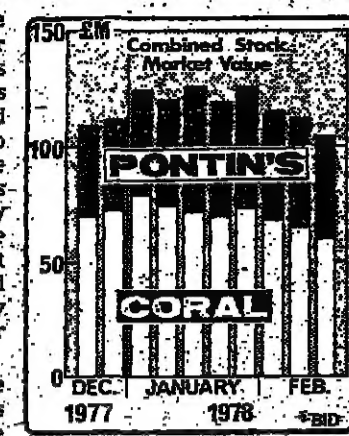
While Coral's shares have been falling, the value of its bid has been propped up by the cash element—which now accounts for over a third of the offer. So whereas the market value of Coral, which made profits of £18m. pre-tax in 1977, is now down to £59m., the bid is currently worth £48m. Pontin's is expected to make just £7.5m. in 1977-78.

Moreover, while Coral's profits have shot ahead in recent years, Pontin's have fallen well behind the rate of inflation in terms of profits per share. And its return on capital employed has not been impressive, which tends to throw cold water on the suggestion that its net assets are worth considerably more than the book figure of about £41m.

Critics of the bid argue that there is little scope for improving this performance. They say that Pontin's marketing is already good, and that Coral will be able to add little to the image created by Sir Fred Pontin. Coral is still digesting last year's £16m. take-over of Centre Hotels, whose chief executive has just left the group. It is now proposing to absorb a much larger operation, which has been managed in a distinctive style by a man who is now in his seventies—and who made the initial approach for the take-over.

Against this, Coral thinks there is room for improving the returns on Pontin's overseas business, which produced about a sixth of this year's profits. Recent expansion by Pontin's in the U.K. is now reaching the pay-off stage. And there is also said to be room for developing joint interests in such areas as licensed catering and bingo.

Above all, the bid for Pontin's is seen as a unique opportunity to use the enormous cash flows being generated by Coral's casinos as a means of broadening the base of the group into a solid, established business. The casinos could have accounted for as much as £11m. of Coral's



profits last year. No wonder more like proprietors, the group is anxious to reduce this exposure.

But Coral will need some years to prove its point. Meanwhile, the enlarged group will have quite high financial gearing—debt of about £40m. compared with tangible net worth of £56m.—and profits of about £24m. after financing costs. With a combined market of capitalisation of £104m., the shares are leading for support on their dividend yield of 84 per cent.

Institutions

It is desirable in theory to create closer ties between companies and their institutional shareholders, but it is very difficult in practice. The latest CBI evidence to the Wilson Committee does little more than remind us of this. It reads almost as though the CBI working party has cast around for Pontin. Coral is still digesting last year's £16m. take-over of Centre Hotels, whose chief executive has just left the group. It is now proposing to absorb a much larger operation, which has been managed in a distinctive style by a man who is now in his seventies—and who made the initial approach for the take-over.

Against this, Coral thinks there is room for improving the returns on Pontin's overseas business, which produced about a sixth of this year's profits. Recent expansion by Pontin's in the U.K. is now reaching the pay-off stage. And there is also said to be room for developing joint interests in such areas as licensed catering and bingo.

Above all, the bid for Pontin's is seen as a unique opportunity to use the enormous cash flows being generated by Coral's casinos as a means of broadening the base of the group into a solid, established business. The casinos could have accounted for as much as £11m. of Coral's

executive directors are not found; they will have been drawn from the ranks of the industry.

But the working party has at least one more task. It is to ensure that the group's directors could serve as team ambassadors for the shareholders, and could be proposed by them. It may be said that they would be placed "to draw the attention of the Board colleagues to the need to consult the institutional shareholders." Only "a small resort" should they be such shareholders themselves.

If institutions are to be more like proprietors, the group is anxious to reduce this exposure. But Coral will need some years to prove its point. Meanwhile, the enlarged group will have quite high financial gearing—debt of about £40m. compared with tangible net worth of £56m.—and profits of about £24m. after financing costs. With a combined market of capitalisation of £104m., the shares are leading for support on their dividend yield of 84 per cent.

Double tax treaty

BAT Industries has given a hint that the much-delayed double tax treaty between Britain and the U.S. will be in its present form. Consequently, it has gone back to the U.S. without a treaty, at the rate of 15 per cent instead of the 5 per cent rate provided for under the revised treaty, which it had been using since 1975.

The treaty was originally set up because of Californian objections, since it would have prevented the State applying a unitary tax system to British-based companies. Under the existing system, British companies operating in California are taxed, not on the basis of their accounting profits, but on a proportion of their world-wide income, using supposedly objective criteria such as wage cost turnover and assets. This system can be particularly tough on new businesses, facing start-up costs in the State.

But now the controversy has escalated into a dual over State versus Federal rights in tax on parties. So it is anybody's guess what will happen if and when the Inland Revenue is talking of early Spring, the treaty comes before the U.S. Senate Foreign Relations Committee again. In the meantime, the BAT treaty still applies.

Radio men's action hits North Sea oil rigs

By Our Labour Staff

OPERATIONS ON about a dozen North Sea oil rigs, including platforms in the Tuisle field, will be disrupted from today as 44 radio controllers start an official work to rule because of a pay dispute.

No major interruption to production of oil is expected initially, but there will be a threat to supplies if action is prolonged.

The radio controllers hold key positions in North Sea oil operations because they handle all communications with supply vessels. In particular they are responsible for radio communications with helicopters and supply vessels.

The trouble has been brewing since last October when the National Maritime Board concluded a Stage Two pay award for officers working in the North Sea and also agreed to a self-financing productivity scheme to give between 12.5 per cent, and 14 per cent extra from November.

The Radio and Electronic Officers' Union claims that 44 of its members working on rigs owned by Shell, British National Oil Corporation, BP and Texaco, are being excluded from the productivity deal because for the first time they have been placed outside the Marine Board settlement.

More talks

Marconi Marine which employs the radio controllers is paying the Stage Two increase but has told the union that a separate productivity deal must be negotiated for work on oil rigs. To adopt the same deal as that reached for officers on deep sea vessels would, it is feared, be in breach of the Government's pay guidelines.

Separate negotiations for oil rig work have been in progress since December but the union is insisting that the Board payment should be made in the interim.

Mr. Jack Bromley, deputy general secretary of the REOU, said yesterday it was decided to go ahead with the work-to-rule after negotiations failed to make progress on the union demands. A further meeting was planned later this week but meanwhile, radio officers would be refusing to work longer than the stipulated 12 hours a day for a 14-day stint and meal breaks would be strictly observed.

He said the "sudden" departure from the NMB pay agreement by Marconi raised a number of difficulties in operating the complex pay structure because officers were often transferred between deep sea vessel work and work on oil rigs. Average pay at present was between £7,000 and £8,000 a year. He believed that his members could justify a similar productivity bonus on oil rigs to that on deep sea vessels.

The prospect of a build up to a strike by the radio officers is expected to lead oil companies to put pressure on Marconi for an early settlement.

CBI urges closer contact with shareholders

BY NICHOLAS COLCHESTER

THE Confederation of British Industry has again urged that executive directors should act as non-executive directors on the boards of non-competing companies. It suggests such arrangements—to help develop the relationship between companies and their shareholders—in evidence to the Wilson Committee studying the financial institutions.

The CBI proposal is a development of one submitted 18 months ago to the Bullock Inquiry on industrial democracy. Companies should, the CBI feels, have at least three such directors. This "cross-fertilisation" plan should initially be applied to the top 200 British companies, whose equity accounts for some 80 per cent of the market capitalisation of quoted companies.

Boards of companies should take the initiative in developing contact with shareholders, particularly with institutional shareholders. There is scope for the number of these contacts to be increased," the CBI says.

The evidence maintains that because the Institutional Shareholders Committee must act with great discretion, its influence is not fully appreciated and its function is not understood by companies.

The CBI declares: "Any non-executive director would be particularly well-placed both to call the attention of his Board colleagues to decisions on which it would be desirable to consult

institutional shareholders, and thereafter, and as a last resort, to be prepared to consult directly with such shareholders.

"Because they cannot be expected to concern themselves with the day-to-day problems of the company, non-executive directors have a special contribution to make to the debate about longer term issues; because they are informed and involved, but at the same time detached and dispassionate, they can contribute valuably different views to board room discussions; in the extreme, not being dependent on the company for their livelihoods, non-executive directors can sometimes have a greater freedom of action."

The evidence was prepared by a working party headed by Sir Arthur Knight, chairman of the Courtlands.

The CBI declares: "Any non-executive director would be particularly well-placed both to call the attention of his Board colleagues to decisions on which it would be desirable to consult

institutional shareholders, and thereafter, and as a last resort, to be prepared to consult directly with such shareholders.

"Because they cannot be expected to concern themselves with the day-to-day problems of the company, non-executive directors have a special contribution to make to the debate about longer term issues; because they are informed and involved, but at the same time detached and dispassionate, they can contribute valuably different views to board room discussions; in the extreme, not being dependent on the company for their livelihoods, non-executive directors can sometimes have a greater freedom of action."

The evidence was prepared by a working party headed by Sir Arthur Knight, chairman of the Courtlands.

The CBI declares: "Any non-executive director would be particularly well-placed both to call the attention of his Board colleagues to decisions on which it would be desirable to consult

institutional shareholders, and thereafter, and as a last resort, to be prepared to consult directly with such shareholders.

"Because they cannot be expected to concern themselves with the day-to-day problems of the company, non-executive directors have a special contribution to make to the debate about longer term issues; because they are informed and involved, but at the same time detached and dispassionate, they can contribute valuably different views to board room discussions; in the extreme, not being dependent on the company for their livelihoods, non-executive directors can sometimes have a greater freedom of action."

Directors facing problems may approach City panel

BY MARGARET REID

DIRECTORS of public companies with management difficulties will in future be able to approach the City's Institutional Investors Committee, set up to co-ordinate action among investing institutions over problem companies.

Until now, the committee—of which little has been heard publicly since it was established in 1973 with the encouragement of Lord O'Brien, former Governor of the Bank of England—has acted only when worries about any particular company have been raised within the investment community.

However, according to a statement today, "A company will be able to use the machinery of the committee to facilitate an approach by a Board to its institutional shareholders where contacts do not already exist."

The committee was created by the British Insurance Association, the National Association of Pension Funds, the Association of Investment Trust Companies and the Unit Trust Association. The object was to stimulate action by industrial and commercial companies to improve efficiency.

But the committee has followed the principle of seeking to do good by stealth—by keeping its activities so secret that they are virtually unknown in many quarters—and have so far made no marked impact on the business scene.

Although the committee has considered a number of problem cases over the last four years, fewer have come to it in the last few months, partly because the better financial climate has

reduced the scope for serious problems arising.

So now the committee, whose present chairman is Lord Remnant, is to be open to approaches to strict confidence from any director of any company who wants to discuss its management problems.

Normally, though, such an initiative would be acted on only if the approach were made with the knowledge of the company's chairman, since any case committee formed to investigate the matter would have to discuss the problem with other members of the Board.

It is also proposed that the committee should do more to encourage better communication between company Boards and shareholders, even where criticism of management may not be involved.

Powell 'guilty of race deception'

BY RUPERT CORNWELL, LOBBY STAFF

Mr. Enoch Powell's insistence that repatriation is the only means of curbing the growth of Britain's immigration community was criticised sharply yesterday by Mr. David Lane, chairman of the Commission for Racial Equality. Pointing to Mr. Powell's suggestion in a major speech at the weekend that Mrs. Margaret Thatcher was poised to "deceive" the electorate by making promises she could not keep, Mr. Lane accused him of misleading people himself.

"In apparently advocating the mass expulsion of coloured people, Mr. Powell must know that no British Government could contemplate policies of that sort. He himself is guilty of the cruel deception of which he

accuses others, and is adding to the fears of minority communities."

Mr. Mark Carlisle, a Conservative Home Office Minister between 1970 and 1974 who was closely involved with the Heath Government's immigration policies, rejected as "absolute nonsense" Mr. Powell's claim that the public had been deceived by Tory electoral pledges.

"Mr. Powell is muddling two things, immigration and the number of people already here," he said. "Mrs. Thatcher has talked about reducing the rate of new immigration, but never of reducing the number already here. This could be done only by forced repatriation which would not be acceptable."

The next Conservative Government, he said, should cut the number of potential heads of households coming in. He implied that the main change from present Labour policy would be to reverse the decision of Mr. Roy Jenkins to allow male fiancés greater freedom of entry.

Mr. George Gardiner, Tory MP for Regate, suggested that the inflow could be lowered by setting up a register of dependents and fixing annual quotas.

"But we cannot and will not heed Mr. Powell's call for large scale repatriation of families who have perfectly legally settled here. Rounding up coloured men, women and children and packing them onto planes would be totally repugnant to the vast majority of British people."

Weather

U.K. TODAY

MAINLY dry, very cold. England, London, S.E. and Cent. England, Wales, S.W. and W. of Ireland, S. of Scotland, Channel is.

Mainly dry, cloudy. Wind E. strong or fresh. Max. 13C (55F). E. Anglia, E. and N.E. England. Snow showers on coasts. Sunny intervals. Wind E., moderate or fresh. Max. 13C (55F).

S.W. England. Mainly dry, cloudy. Wind E., fresh. Max. 13C (55F). Wales, N.W. England, Lakes, I. of Man, N. Ireland. Mostly dry, sunny spells. Wind S.E., moderate or fresh. Max. 20C (68F).

Scotland. Mostly dry, sunny spells. Wind variable, moderate. Max. 12C (54-56F).

Outlook: Very cold.

BUSINESS CENTRES

City	Yday	Today	Tomorrow
Amsterdam	C 10	10	10
Antwerp	C 10	10	10
Bahran	S 15	15	15
Bombay	S 15	15	15
Buenos Aires	S 15	15	15
Calcutta	S 15	15	15
Canton	S 15	15	15
Cebu	S 15	15	15
Hankow	S 15	15	15
Hong Kong	S 15	15	15
Kobe	S 15	15	15
London	C 10	10	10
Lyons	C 10	10	10
Manila	S 15	15	15
Medan	S 15	15	15
Osaka	S 15	15	15
Paris	C 10	10	10
Shanghai	S 15	15	15
Singapore	S 15	15	15
Tokyo	S 15	15	15
Yokohama	S 15	15	15

HOLIDAY RESORTS

City	Yday	Today	Tomorrow
Amsterdam	C 10	10	10
Antwerp	C 10	10	10
Bahran	S 15	15	15
Bombay	S 15	15	15
Buenos Aires	S 15	15	15
Calcutta	S 15	15	15
Canton	S 15	15	15
Cebu	S 15	15	15
Hankow	S 15	15	15
Hong Kong	S 15	15	15
Kobe	S 15	15	15
London	C 10	10	10
Lyons	C 10	10	10
Manila	S 15	15	15
Medan	S 15	15	15
Osaka	S 15	15	15
Paris	C 10	10	10
Shanghai	S 15	15	15
Singapore	S 15	15	15
Tokyo	S 15	15	15
Yokohama	S 15	15	15

Continued from Page 1

Carter talks as coal peace bid fails

Industry is situated, faces grim prospects if the strike is not settled quickly. Although the effects of coal shortage and bad weather in the worst-hit States have been localised, lay-offs of workers have started and more than 500,000 redundancies are threatened.

The main reason for this is

that it takes three weeks from the resumption of mining to rebuild minimum stockpiles—and spring is still more than a month away in this most brutal of winters.

Coal supply is at its worst in parts of Indiana and Ohio. However, the state of Illinois, although heavily industrialised,

is enjoying the fruits of recent heavy investment in nuclear power stations. So much so that it is preparing to assist neighbours with reserve power.

Illinois obtains more than half of its electricity from nuclear sources. From tomorrow, it will begin reactivating a number of turbine power stations which

were closed recently as surplus to requirements.

These will be used to channel additional power to Indiana, and on to Ohio if needed. In this way, Illinois is capable of providing an additional 400 megawatts of capacity to these States, although it is not clear whether inter-State transmission lines could accept such an amount.

The Fairview Trading Estate
SILVERTOWN
where the cubic capacity offers

more space for the same rent

Warehouse/Industrial Units
from 20,000 sq. ft. to 140,000 sq. ft. approx.
Extra offices up to 12,500 sq. ft. can be provided if required.

Fairview
GRANT

Registered at the Post Office. Printed by St. Clement's Press for the publishers by the Financial Times Ltd., Bankers, House, Cannon Street, London, E.C. 4.